INSIDE: 4 New Multimedia Computers Rated

June 1995

Family PC

PC • MAC • MULTIM

~~$2.95~~ SPECIAL PRICE! $1.95

100 Best PRODUCTS

FamilyTested Awards and More

The Family PC toolbox

Prevent PC Disasters with Our Selection of Essential Software

Great SUMMER Projects

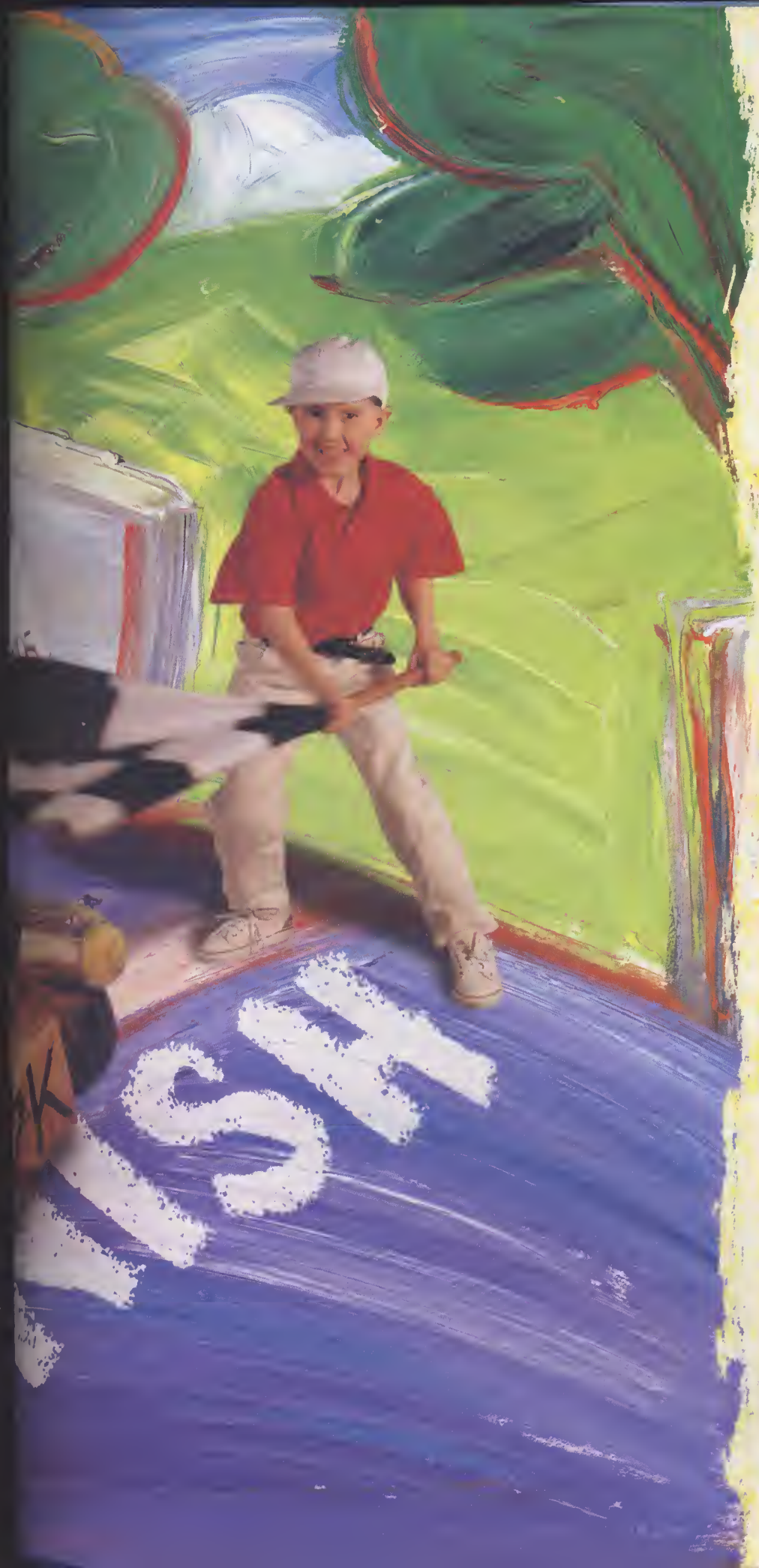
Multimedia Vacation Albums

Custom Baseball Cards

12 *Affordable* 17-inch Monitors

06
0 14024 01247 5

GATEWAY2000



GATEWAY2000
FamilyPC

P5-75 Family PC™

- Intel® 75MHz Pentium™ Processor
  Intel Verified: Upgradable
- 8MB EDO Performance-Enhanced Memory
- 730MB IDE Hard Drive
- PCI Enhanced IDE Interface
- 64-Bit PCI Graphics Accelerator with 2MB DRAM
- Quad-Speed CD-ROM Drive
- 16-Bit Sound Card &
  Altec ACS-5 Speakers
- TelePath™ IIv 14.4K Fax/Modem Communication Center
- 3.5" Diskette Drive
- 17" Vivitron™ Color Monitor
- Desktop Case
- 101-Key Keyboard & MS Mouse
- MS-DOS® 6.22 & WFW 3.11
- Home Bundle software collection pre-installed on the hard drive
- 3-Year Limited Parts Warranty
- Toll-free telephone technical support for the life of your system

$2499 *(Other models start as low as $1,699)*

*GST and shipping not included.

© 1995 Gateway 2000, Inc. "G" logo, "You've got a friend in the business" slogan, and Gateway 2000 are registered trademarks, and Vivitron, DuoLine, TelePath and Family PC are trademarks of Gateway 2000, Inc. The Intel Inside Logo, Intel, and Pentium are trademarks or registered trademarks of Intel Corporation. All other brands and product names are trademarks or registered trademarks of their respective companies. Monitors' diagonal measurements indicate the size of the cathode-ray tube. All prices and configurations are subject to change without notice or obligation.

Start your engines! The best-built contender in the Family PC race puts you in the winner's circle in no time flat. Just check under the hood. The Gateway 2000®

P5-75 Family PC features a Grand Prix package, including a quad-speed CD-ROM drive (the fastest available!), a champion-size 17-inch Vivitron color monitor, a super-charged stereo sound system, and an incredible collection of 20 software applications to spark every family member's interest. Start to finish, it's a sure fire winner at an unbeatable price!

On the mark. Built for top performance, this Pentium processor-based system offers you a real edge. Running your software on the quad-speed CD-ROM drive, you'll achieve the full-screen, full-motion video not possible with a double-speed CD-ROM drive. We've also included the most complete family software package on the planet! You'll be off and running with Microsoft Bob. Bob makes it easy for you to get around the computer without spinning your wheels. And no kidding, the Family PC's Home Bundle software collection includes over 20 software applications!

Get set. Take a trip on the information superhighway with the Communication Center in your P5-75's TelePath IIv fax/modem. You can access a fax machine, a modem and an answering machine all in one! Your family will be ahead of the pack — at home and abroad — behind the wheel of this 14.4KB fax/modem.

Go! Gateway makes family computing easy, fast and fun from the word "go." The very best value — combined with superior service and support — will put your family in motion and keep 'em on track for years to come. And we drive a great bargain. All Gateway desktop systems and monitors include a three-year warranty, and toll-free technical support for the life of your system. We accept most major credit cards or you can apply for a Gateway 2000 DuoLine™ MasterCard® card, issued by Dial National Bank, Des Moines, Iowa. Call today to get your family charged up and on the road to inspiration, education, motivation *and* fun with a Family PC from Gateway 2000!

intel inside
pentium PROCESSOR

Family PC Home Bundle

- Microsoft® Bob
- MS Works 3.0
- MS Encarta '95
- MS Money
- MS Cinemania® '95
- MS Publisher
- MS Publisher Design Pack
- MS Bookshelf
- MS Composer Collection *including:*
  - Beethoven
  - Mozart
  - Schubert
- MS Wine
- MS Arcade Collection *including:*
  - Missle Command™
  - Asteroids®
  - Tempest™
  - Centipede®
  - Battlezone™
- MS Dinosaurs
- MS Entertainment Packages 1, 2, 3 & 4
- Mayo Clinic® Family Health Book
- Mayo Clinic Pharmacist

GATEWAY2000

"You've got a friend in the business."®

8 0 0 - 8 4 6 - 4 5 0 8

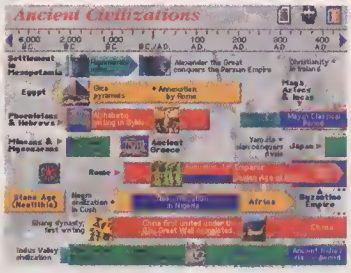
610 Gateway Drive • North Sioux City, SD • 57049-2000
Sales Hours: 7am-10pm Weekdays, 9am-4pm Saturdays (CDT)

At 16, Einstein wrote the paper that led to the Theory of Relativity.

Life is a series of achievements. And to achieve excellence, you need the right tools. Like **The 1995 Grolier Multimedia Encyclopedia.**

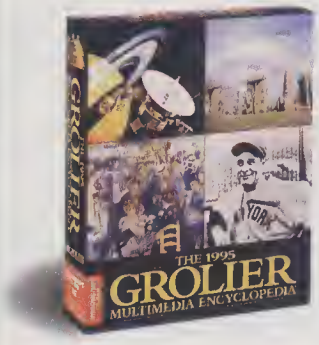
An array of multimedia features and entry points make every search a unique experience.

Grolier is the only multimedia CD-ROM based on the prestigious 21-volume *Academic American Encyclopedia*. It's the only reference that provides powerful interactive features like Pathmakers – a series of thematic information networks that allow you to make surprising discoveries as you link to articles, multimedia and video interviews. Only Grolier offers fascinating Knowledge Explorer™ audio-visual essays and insightful, animated Multimedia Maps. With Grolier, you'll enjoy many exciting hours of multimedia, including 8,000 pictures, 33,000 articles, over 635 maps, a new graphical Timeline and much more. For breadth and depth of information, quality of contributors and ease of use, you won't find a better reference on CD-ROM. For more information, call **800-285-4534.**



Watch history repeat itself with the all-new graphical Timeline.

The innovative Pathmakers feature takes interactive exploration to new heights.



THE 1995
GROLIER
MULTIMEDIA ENCYCLOPEDIA

The best reference on CD-ROM

The World's First Digital Toy.

1996 PARENTS' CHOICE APPROVED® Parents' Choice Foundation 1996

DIGITAL PICTURES, THE DIGITAL PICTURES LOGO, KIDS ON SITE, DIGITAL KIDS, THE DIGITAL KIDS LOGO, INSTASWITCH, DIGICHROME AND "THE WORLD'S...DIGITAL TOY" ARE ALL TRADEMARKS OF DIGITAL PICTURES, INC.
SEGA AND SEGA CD ARE TRADEMARKS OF SEGA ENTERPRISES, LTD. ©1995 DIGITAL PICTURES, INC. ALL RIGHTS RESERVED

Available at Egghead, Electronics Boutique, Software Etc., CompUSA and Computer City.

100% Instantly Interactive Full-Motion Video from Digital Kids.

KIDS O' SITE

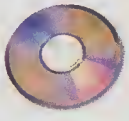
Put your youngsters right in the driver's seat with Kids On Site, the fun CD-ROM from Digital Kids. Let them experience the thrills of operating four monster machines in a real construction site. Our friendly cast of characters — Bertha, Dizzy, Nuts and the Coffee Break Gang — join in the mischief as your young rookies take control of the wrecking ball, excavator, bulldozer and steamroller.

Your children will be thrilled as they control the bulldozer, steamroller and wrecking ball in a real construction site.

Kids On Site delivers 100% real, full-motion interactive video with two patent-pending technologies: InstaSwitch® for instant action and DigiChrome™ for dazzling, high quality graphics. So now your children can do something *really* constructive on the computer today.

For the dealer nearest you or to order direct call 1-800-262-5020.

KIDS TO ADULTS K-A AGES 6+



Kids On Site is now available for PC CD-ROM, Mac CD-ROM and Sega™ CD.

Digital Pictures

Critics agree Kids On Site is a HIT!

"...the next best thing to actually being behind the wheel."
Computer Game Review

"Youngsters (and parents) will love it. Grade: A."
The Minneapolis Star Tribune

"Kids On Site...the most fun children's title around!"
The Knoxville News-Sentinel

"Kids On Site tries to do only one thing – let kids see what it's like to operate heavy machinery – and does it well."
The Washington Post

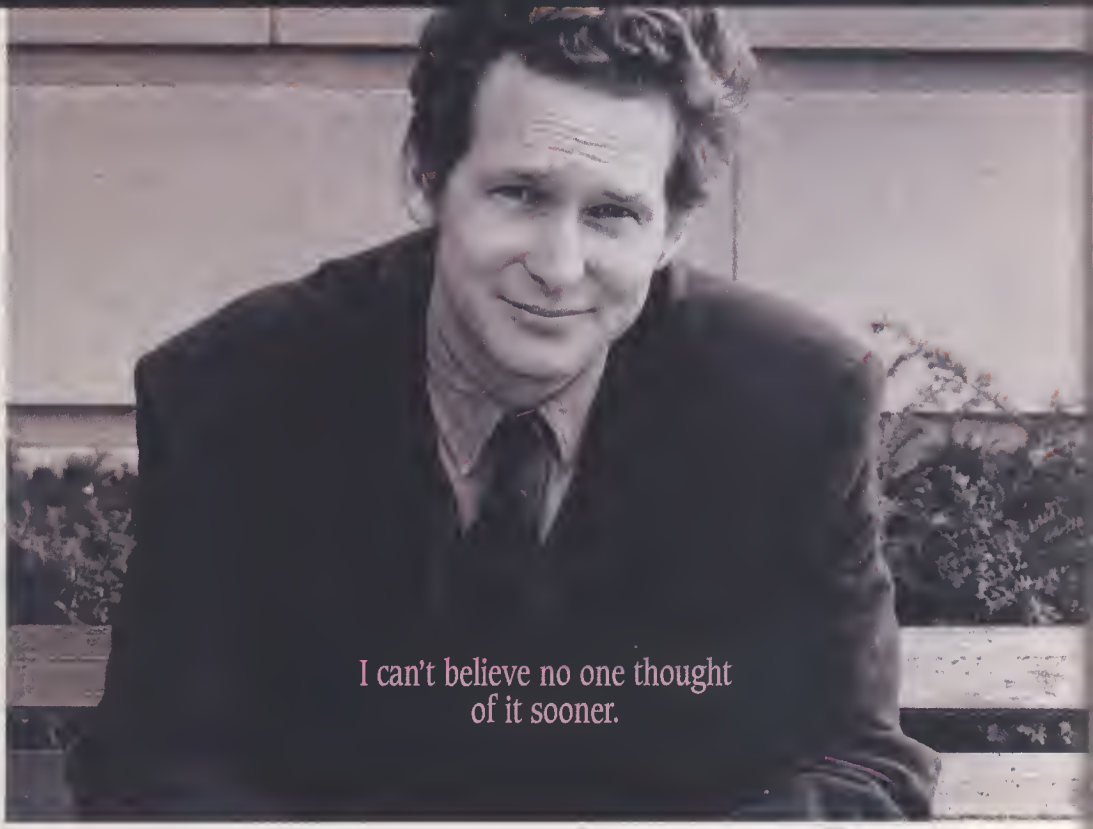
"Digital's use of full-motion video makes it oh-so-real-looking-it's worth checking out."
GamePro

"This interactive CD motion picture reminds me of Laurel and Hardy at a construction site."
Orange County Register

"Digital Pictures has raised the standard for video on CD-ROM."
The Louisville Courier-Journal

"...one of the year's funniest titles." (Rating) A
Radio Aahs

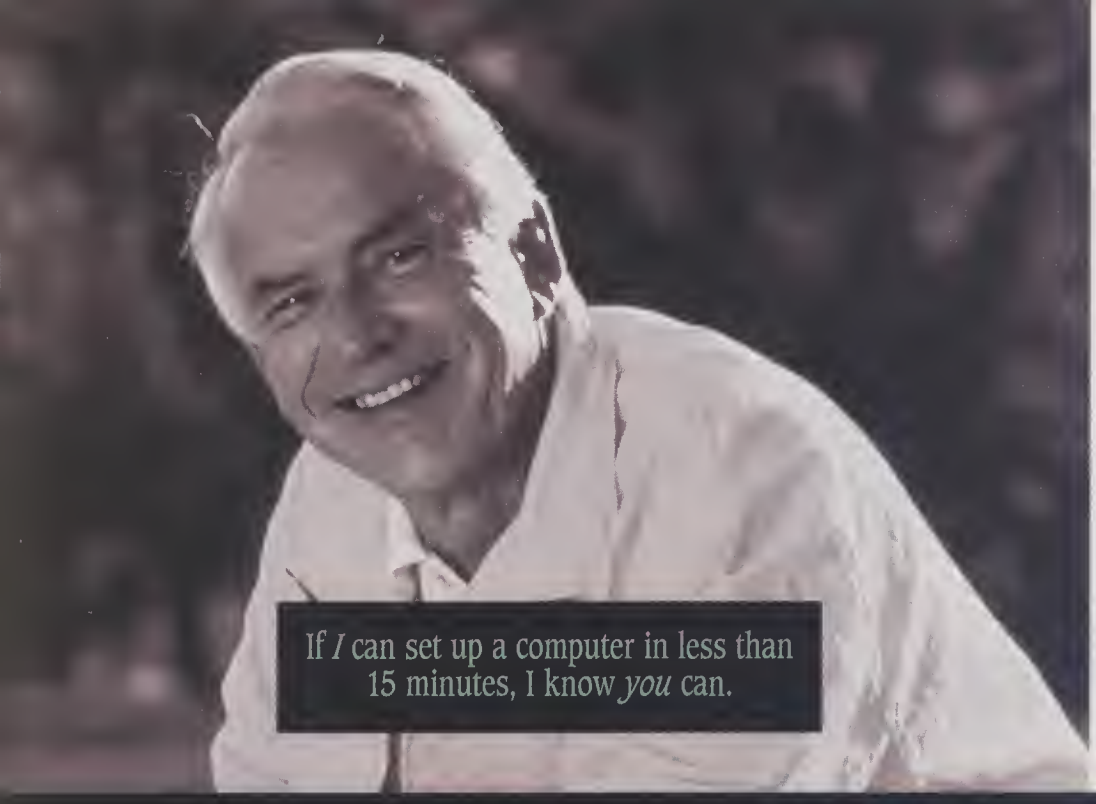
OOBE: Making



ACER COMPUTERS • THE INDUSTRY SOURCE

Call 1-800-371-ACER
for the Acer retailer nearest you.

Acer and the Acer logo are registered trademarks and OOBE is a trademark of Acer America Corporation and Acer Inc. All other products, brands or company names are trademarks or registered trademarks of their respective companies. ©1995 Acer America Corporation. All rights reserved. *PC Magazine* quotes reprinted from *PC Magzine* December 20, 1994. Copyright ©1994 Ziff-Davis Publishing Company L.P.



computers easy.

Out-Of-Box Experience

OOBE™ (rhymes with ruby) stands for the "Out-Of-Box Experience." New from Acer, OOBE makes setting up a personal computer faster and easier than you ever imagined. Step-by-step, illustrated instructions. Clearly labeled packaging. Even a toll-free hotline to answer your questions.

And after you're up and running, OOBE continues with A.C.E., the Acer Computer Explorer. A.C.E. is a unique menuing system that works with Microsoft® Windows™ to make Acer computers even easier to use.

OOBE is available in Acer PCs from desktops to Pentium™-processor multimedia minitowers. And it's waiting for you at your local Acer retailer.

"...a breeze to unpack. The large instruction sheet explained the assembly process easily."
PC Computing, Dec. 1994

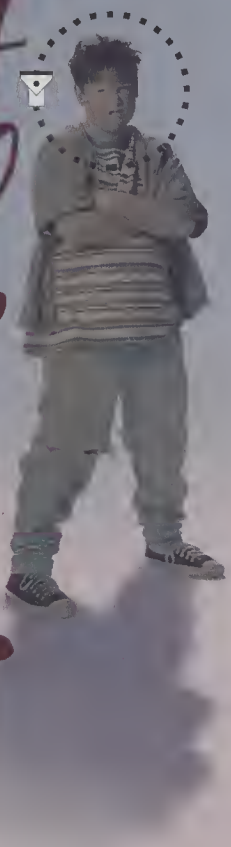
"...A.C.E. Windows front end is one of the best around."
PC Magazine, Dec. 20, 1994

"OOBE is the Holy Grail..."
PC Magazine, Dec. 20, 1994

Acer®

The Industry Source Means Value.

If you can't beat 'em, scan 'em.



Just remember: the bigger they are, the funnier they scan. So quit using that computer as a high-tech typewriter, and start flexing some of its creative muscle.

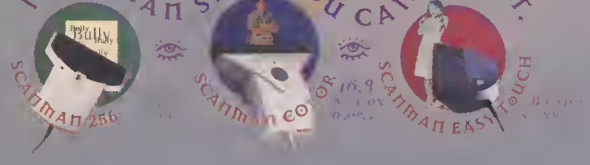
With a ScanMan® scanner from Logitech, you can easily scan photographs, text, pictures, clippings, articles, your face—anything you want. Suddenly, you'll have more than enough ammunition to jazz up those invitations, newsletters, art projects, school reports, and everything else. Of course, whether you also use it to settle a few scores is entirely up to you.

Meet the school idiot. Today at lunch.

Logitech Scanners NEW LOW PRICE!

SCANMAN DELIVERS BETTER COLOR, LESS SKEWING *AND* NEVER NEEDS TO WARM UP.

IF YOU CAN SEE IT YOU CAN SCAN IT.



ScanMan from Logitech, it's the best friend you—and your computer—could ever have. To receive more information by fax call 1-800-245-0000, ext. 4042 for ScanMan 256, ext. 4043 for ScanMan Color, or ext. 4044 for ScanMan EasyTouch.

LOGITECH

Windows™ only 386 or better required. TWAIN compliant

Family PC

FEATURES JUNE 1995

62 The Family PC Toolbox

Keep your Windows PC or Mac running smoothly — and prevent unthinkable disasters — with our selection of must-have utilities. We also tell you when and how often you need to perform preventive maintenance.

62 Toolbox
Software to keep your family PC running smoothly.

80 FamilyTested Software

The ultimate authorities on software — hundreds of families like yours — grade Kid Pix Studio, Imagination Express, The Magic School Bus Explores the Solar System, Ozzie's World, What's the Secret?, Widget Workshop, Thinkin' Things Collection 2, The Aladdin Activity Center, and many more.

94 Hardware
If you spend too much time squinting and scrolling, upgrade to a bigger and better monitor.

FAMILYTESTED HARDWARE

94 Big Monitors

Running out of room for Windows? Get higher resolution and more desktop real estate with a 17-inch monitor. The good news is that the big picture doesn't carry a big price.

WORKING AT HOME

108 Going Mobile

If you can't manage to get a minute alone on your family PC and you can imagine yourself using a computer away from home, a notebook PC makes the perfect second system.

Cover photograph by Jade Albert

The Family PC FamilyTested Awards

71 For the last nine months, our panel of family testers and staff experts have installed, run, played with, tested, measured, and timed hundreds of software and hardware products. Here are our one-stop shopping lists of the best products your money can buy.

Family PC

DEPARTMENTS

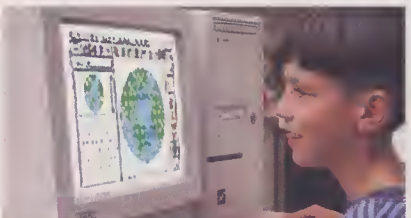
54 What's On *Is your money growing or going? Find out online.*

14 Editor's Note
An Ounce of Prevention

16 Letters

22 Keeping Pace

31 Help!
Learn how to get files from Mac to PC and back. Get back that Windows Program Manager group box you accidentally deleted. Find out quickly if your Pentium is buggy. Advice on how to manage critical Windows systems. Plus: tips to make computing safe and sane.



47 Fun *Have a family POGfest.*

47 Fun
They're round; they're hot; they're POGs — learn how you and your kids can make your own. Major-league tips on playing HardBall 4. Music trivia for the whole family.

54 What's On
Discover a wealth of investment and money resources online. Keep your online friends just a keystroke away with electronic address books.

59 Double Click
Online Adventures

REVIEWS

117 Hardware
Compaq Presario CDS 972, Packard Bell Multimedia Pentium PC, USA Flex 486DX4/100 Customized AMD Family Edition, Leading Edge Fortiva 5000 P5-60 DT5990, Canon BJ-200ex.

120 Software
Oregon Trail II, Alien Tales, CollegeWhere, ThinkSmart College Guide, Inside the SAT, American Pie Music, KidRiffs.

124 Creative Computing
124 Bring memories to life with a multimedia vacation album.

128 Make your child a star with personalized sports cards — just like pros'.

131 Step by Step
Instructions for making personalized sports cards.

133 Family Shopper
Do "energy-efficient" PCs save money as well as power? Ten tips for buying by mail order. Multimedia catalogs on CD-ROMs — a new way to shop.

137 MEGAzine
The kids' computer magazine.

152 Backspace
The lighter side of computing.

124 Creative Computing
Immortalize your son or daughter on a customized sports card.

117 Reviews
Compaq brings home its first Pentium Presario — and it's worth the wait.

137 MEGAzine
For kids only — cool games, tricks, tips, and more.

Laugh and Learn with the Craziest Superhero This Side of the Lunar Surface

Enter a real Hollywood-style cartoon with zany characters and funny adventures. Meet Emma C. Squared who, while trying to unlock the secrets of the universe, accidentally unleashes Entrobe (the greediest two-tons of glutton you've ever seen) and his not-so-slick sidekick, Kid Chaos from their extraterrestrial particle prison.

Help Hyperman solve challenging science problems and stop Entrobe from ruining everything. Entrobe is bent on turning the world upside-down by altering the earth's chemical, physical and biological properties. It's up to you and the superhero Hyperman to save the universe from total disaster.

Discover the deep secrets of nature in Emma's science exploration lab. Create mutations in the evolution chamber terrarium. Find bizarre micro life with the high powered electron microscope. Learn how to use refracted light to squelch a volcano, make cows fly through the sky, and fly a stinky methane hot air balloon (whew!).

THE ADVENTURES of HYPERMAN

To order or for more information call 1-800-898-8842

© Copyright IBM Corp. 1994. All rights reserved. The IBM Multimedia Publishing Studio. IBM is a registered trademark of International Business Machines Corporation.

IBM®

Microsoft Home
Microsoft ENCARTA'95
The Complete Interactive Multimedia Encyclopedia
Microsoft Home
Microsoft WORKS
Microsoft BOB
MICRON

THE P75 HOME MPC

Your Best Value in Pentium Power

Windows applications have revolutionized the way you do business and even the way you live. From presentation packages and word processing to financial management and spreadsheets, increased computing speed and processing power have become basic necessities. But when it comes to action-packed games and dynamic multi-media CDs , you need more than just horsepower. Micron's new Pentium-based Home MPC™ is your answer! And since it's from Micron, it's not only loaded with power, it's also packed with standard features that the other guys add as extras, which usually means more money. Only the Micron Home MPC features 8MB of Micron RAM; a super-fast 4x EIDE CD-ROM drive; and full exploding stereo sound with the SoundBlaster 16, including Koss speakers and a lightning-quick 14.4 Fax/Modem. And when you buy a Micron Home MPC, you'll also receive *Bob*, Microsoft's new user-friendly home interface. Microsoft Bob includes eight essential applications--including a calendar, letter writer, checkbook, and more--that are linked together to make everyday computing tasks easy. With Bob around, you'll really get things done! Plus you'll receive fully-loaded Microsoft software packages, Intuit's *Quicken Deluxe Edition* CD and trial subscriptions for *CompuServe, America OnLine* and *Prodigy* . . . all in one super Micron deal! Virtually redefine your definition of value. Cut loose with some real excitement and check out the Micron Home MPC.

PC WORLD BEST
January 1995
HOME MPC

". . . an unbeatable combination of high performance and features for the price."

- Intel 75MHz Pentium Processor
- 256K Write-back cache, Flash BIOS
- 8MB RAM, 540MB EIDE hard drive
- 4X EIDE CD-ROM drive, 3.5" floppy
- SoundBlaster 16 stereo sound & speakers
- 14.4 Fax/Modem & WinFax Lite
- PCI 64-bit graphics accelerator (2MB)
- 14" Micron 14FG, 1024NI, .28mm

$1,999 Complete!

- *Tool-Free* mini-tower or desktop
- Microsoft Mouse, 101-key keyboard
- MS-DOS & Windows for Workgroups CD
- Microsoft Scenes
- Microsoft Bob CD; Microsoft Works Multimedia CD; Microsoft Encarta 95 CD; Quicken Deluxe Edition CD; Microsoft Dangerous Creatures CD; Microsoft Golf Multimedia CD; Trial Subscriptions for CompuServe, America OnLine & Prodigy.

- *With 90MHz Processor..... add $100*
- *With 100MHz Processor..... add $200*
- *With 120MHz Processor..... add $700*

intel inside pentium

EXCLUSIVELY FROM MICRON

- Next Day Shipping on Selected Systems
- 30-Day Risk-Free Money Back Guarantee
- One-Year Express Parts Replacement
- Lifetime Toll-Free Technical Support
- On-Site Service or System Replacement

Micron Computer, Inc., 900 E. Karcher Road, Nampa, ID 83687 • Mon-Fri 7AM-8PM Sat 8AM-5PM (MT)
208-463-3434 • FAX 208-463-3424 • Purchase Order FAX 208-467-5384

MICRON COMPUTER, INC.

800-400-6750

©1995 Micron Computer, Inc. All rights reserved. All prices and specifications subject to change without notice. Micron Computer, Inc. cannot be responsible for omissions, errors in typography or photography. Intel, Intel Inside, Pentium and Overdrive are registered trademarks of the Intel Corporation. Microsoft is a registered trademark and Windows, Windows NT and the Windows logo are trademarks of Microsoft Corporation. The Energy Star emblem does not represent EPA endorsement of any product or service. All other company trademarks are trade names of each respective company. Prices do not include shipping and handling. 30 day money back guarantee does not include return freight or shipping and handling charges, applies only to Micron brand products, and begins from date of shipment. All returns require RMA numbers and must be shipped in the original condition prepaid and insured. Lease prices based on 36-month lease.

FamilyPC

Editor and Publisher Jake Winebaum
Executive Editor Dan Muse
Managing Editor Jo-Ann Hirschel
Senior Editors Christine Begole, Kurt Carlson, Samuel Mead, Joe Panepinto, Robert M. Ryan
Assistant Managing Editor Margaret A. Richard
Assistant Editors Valle Dwight, Eric C. Griffith, Michelle Megna
Copy Editor Jeff Edmonds
Research Editor Naomi Graychase
Office Manager Judy Fogg
Editorial Associates Mandana Marsh Szkotak, Josiah Yegerlehner
Editorial Assistants Bonny Griffith, Julia Lynch, Susan Roberts, Lauren Simonds
Market Research Associate Jan Phillips
Online Coordinator Jeff Potter
Section Editor/Family Shopper Deborah Branscum
Section Editor/Help Michael Nadeau
Contributing Editors Philip Bishop, Eric & Judy Brewer, Bob Domine, Scot Finnie, Gregg Keizer, Bob LeVitus, Jon Pepper, Pete Scisco

ART AND DESIGN

Art Director Jim Phillips
Associate Art Director Mary Franz
Assistant Art Director Melanie McLaughlin
Design Assistant Paul Bissex
Graphics/Technical Specialist Jodi Winitzer
Design Director Hans Teensma, Impress, Inc.

BUSINESS

Director of Finance and Operations Rob Chmiel
General Manager Charles J. Barrett
Circulation Director Beth Ifcher
Associate Circulation Director Elizabeth C. Collins
Communications Director Alexis W. Fife
Marketing Manager Pam Hirschhorn

PRODUCTION

Production Manager Jennifer Mayer
Advertising Production Coordinator Lynda Segal
Editorial Production Coordinator Dana Stiepock

ADVERTISING

Western Advertising Office
135 Main Street, San Francisco, CA 94105
415-357-5311
Associate Publisher, West Coast Michele Sweeney
Ad Director Anne-Marie Vogel
Southwest Regional Manager Doug Meer
National Account Executive Tami Jackson
National Advertising Coordinator Rikka Seibert

New York Advertising Office
114 Fifth Ave., New York, NY 10011
212-807-5400
Associate Publisher, East Coast Michael Barrett
Northeast Sales Representative Leslie Eddy
National Advertising Coordinator Kira Krieger

Midwestern Advertising Office
625 N. Michigan Ave. Suite 246, Chicago, IL 60611
708-790-3305
Midwest Sales Manager Ann Knox

Detroit Advertising Office
Thomas Siebrasse & Associates, 988 South Adams, Birmingham, MI 48009
810-646-4494

FamilyPC *Board of Directors*
J. Scott Briggs, Thomas E. McGrade, Ziff-Davis Publishing Co.; Thomas Conforti, John Skipper, The Walt Disney Co.

Editorial Correspondence: 244 Main Street, Northampton, MA 01060-0929. Manuscripts, photographs, drawings, disks, and other materials must be accompanied by a stamped, self-addressed envelope. FamilyPC *cannot be held responsible for any unsolicited materials. Subscription rates: $14.95 per year (10 issues) in the U.S., $22.95 overseas. Postmaster: Send address changes to* FamilyPC, *P.O. Box 400454, Des Moines, IA 50340-0454. Subscription correspondence or back issues: write to* FamilyPC, *P.O. Box 400454, Des Moines, IA 50340-0454, or call 800-413-9749.* *Copyright © 1995* FamilyPC. *All rights reserved. Reproduction in whole or part without permission is prohibited. Printed in the U.S.A.*

An Ounce of Prevention

The right assortment of software tools will help you avoid potential PC problems

Most of us have grown up facing the reality of auto and home repair and maintenance. We watched our parents wrestle with burnt-out headlights, dead batteries, snow tires, leaky faucets, cluttered rain gutters, spring cleaning — and the list goes on. As family PCs become more a part of our lives and we depend on them for everything from bill paying to vacation planning, dealing with preventive computer care and fixer-up tasks is a new reality.

The idea of repair and maintenance for the family PC isn't something we think about automatically. And even if we do think about it, utility software is simply not that interesting or fun to use. Backup software doesn't promise the excitement of a multimedia encyclopedia. Virus detection programs don't provide the same satisfaction as simulation software that lets you build new worlds. Most utilities aren't as familiar and comfortable as your word processor or your favorite painting or drawing program. But it takes just one recovered file containing your son's book report or hundreds of addresses you just entered into a database, one detected virus, or one crashed hard disk for a utility program to become your best software friend.

The Right Tools
Make it a habit to keep your PC in good repair.

To protect your investment in hardware and software, as well as the hours you spend working or creating on the computer, you need to apply the same philosophy to your PC as you do to your home or car. Perform the small, routine tasks to avoid big problems later. If you back up critical files regularly, scan for viruses daily, use disk and memory optimization software, and have emergency software on hand, you'll reap the silent benefits of an efficient system. That is, you won't have to explain to your eight-year-old why her original computer artwork is gone. You won't have to tell your spouse that every file on the hard drive has been wiped out by a virus you downloaded.

If you don't use any utility software, you may use your PC for months or years without incident. But why roll the dice with something your family counts on for information, productivity, and entertainment?

We're pleased to bring you and your family new ways to enjoy your computer, but this month in "The Family PC Toolbox" (page 62), we turn our attention to the more pragmatic side of computing. To help you decide what software you need to keep your system running smoothly and when to use it, we've compiled a selection of must-have utilities. And if you're not sure what a disk defragger does or why you need to optimize your memory, we'll tell you what you need to know.

To help assemble this guide, we turned to Kim Komando — a computer expert with a knack for explaining technical details in a friendly (and often funny) style. We think you'll find Kim informative as well as entertaining. In fact, beginning with our next issue, Kim's column will be a regular feature in our Help! section.

Maintaining and repairing the family PC is an easily overlooked household chore, but it's a computer fact of life. If we practice good habits and instill them in our kids, maybe soon we'll be able to add backing up the hard drive to the list of things kids do to earn their weekly allowance.

—Dan Muse
Executive Editor

JADE ALBERT

What do I look for in a computer?

I look for a difference.

For a better way of working.

A better way of doing.

I look for software I can use.

Without a pile of manuals.

I look for hardware I can set up.

Without calling tech support.

I look for power today.

And potential tomorrow.

I look for a symbol.

A sign.

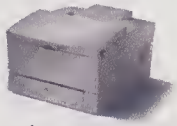
I look for this.

Mac OS

1 in a series

The Mac OS Promise

The Mac™ OS. It's what computer programmers call an operating system. It's what you'll call easy. It's what makes a Macintosh® a Macintosh. It makes you more productive. How can you be sure you're getting everything the Mac OS has to offer? Just look for the logo. On software. On hardware. Everywhere.



Plug and Play. It's a revolutionary concept pioneered by Apple. And promised by many. The difference is, with the Mac OS, you actually get it today. So when you want to connect to a network or set up a printer or a CD-ROM drive or any of hundreds of other peripherals and accessories, all you have to do is plug it in and get right to work. Or play. It's that simple.

What exactly is multimedia? Use a PC running the Mac OS and it's anything you want. You can add music, motion and magic to presentations, school reports, memos and more. You can edit videos. Watch TV. Or run the hottest new multimedia titles.

No matter what you want to do, Mac OS helps you do it. How? By providing a consistent way to work with everything you buy. From business software and home finance packages to educational titles and jazzy new games—thousands of powerful (and fun) applications run under Mac OS.

Used to be, the only way to get your hands on the Mac OS was to get your hands on an Apple® Macintosh. Today, you'll find it on PCs from Radius, Power Computing and more. The same places, in fact, where you'll find our new logo. For more information, call **800-472-4342, ext. 100**, today. Or contact us via the Internet at http://www.info.apple.com/macos/macosmain.html.

Apple

©1995 Apple Computer, Inc. All rights reserved. Apple, the Apple logo and Macintosh are registered trademarks of Apple Computer, Inc. Mac and the Mac OS logo are trademarks of Apple Computer, Inc. Adobe is a trademark of Adobe Systems Incorporated and may be registered in certain jurisdictions. All Apple products are designed to be accessible to individuals with disability. To learn more (U.S. only), call 800-776-2333 or TDD 800-833-6223.

No Help for Have Nots

I take exception to Robin Raskin's April Double Click column ("Bridging the Gap"). I disagree with her view that we all need to share in providing computer access to all children. My husband and I work hard to provide for our children. In fact, our decision to purchase a multimedia computer has crunched our budget. However, we are willing to make sacrifices for our children. I resent constantly being told that I am responsible for the poor children whose parents do not work. Instead of seeing this as an uncharitable view, I think that those of us who make sacrifices and work hard to provide for our children should not be expected to provide for other people's children.

Fran Vasi
Barstow, California

Robin Raskin replies: *You raise important concerns about our educational system. These concerns have been around since the beginnings of the formal education system.*

As I said, I worry that the gap between the information-savvy, computer-literate children and other children will be a bigger, more dangerous gap than any we have known. If we become so callous now as to work for our own children (whichever sector they may be in) at the expense of others, we will be doing a great disservice. Not only will we teach our children the art of egocentrism, we will also encourage a two-tier society with no hope for reconciliation.

A Call for Equal Access

I want to thank Robin Raskin for speaking on behalf of the children who will miss out if they don't have access to technology.

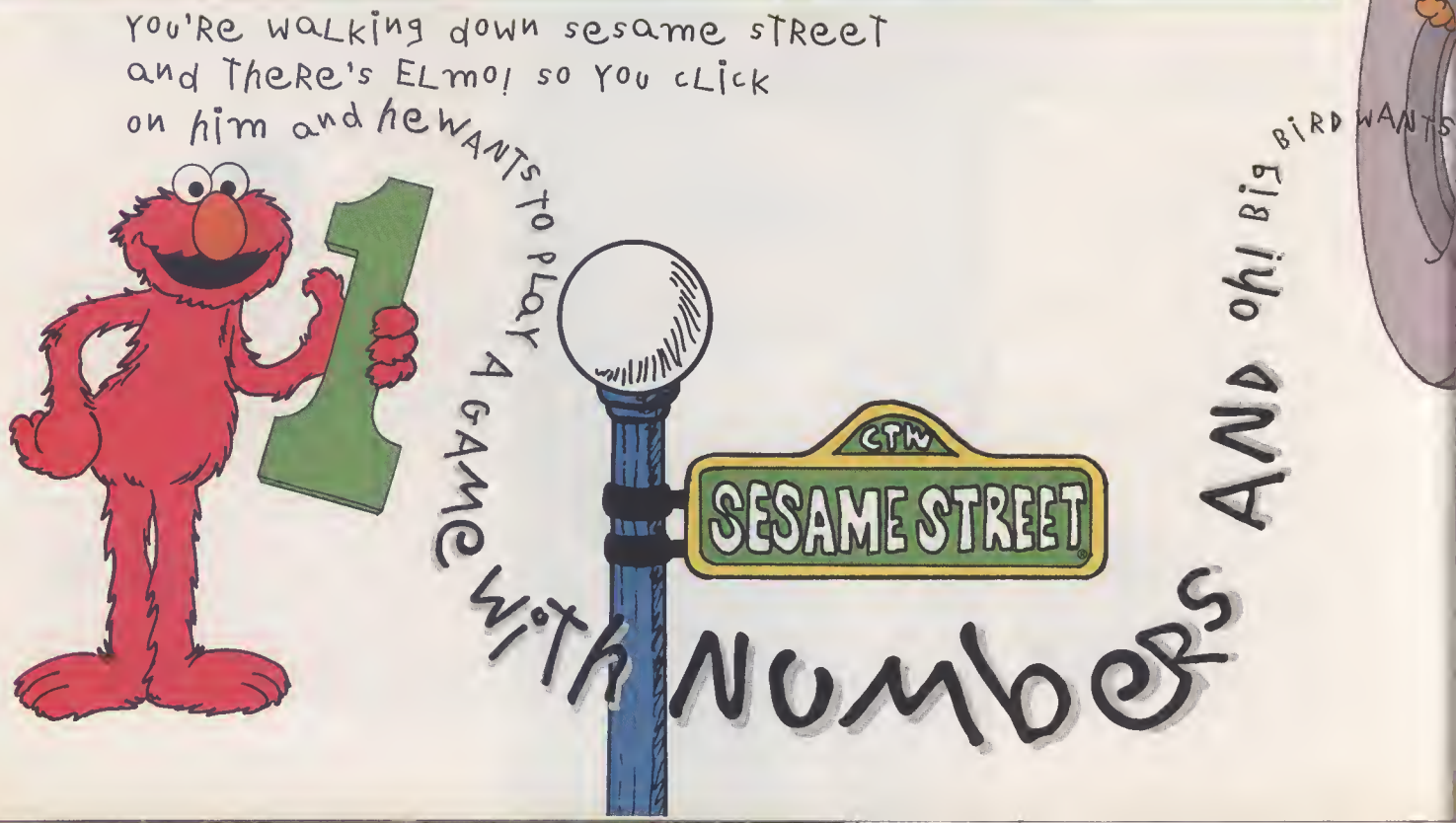
In an ideal world, the best teacher in the country would teach the very same lessons to the have nots as well as to more fortunate students. Think of it: equal, state-of-the-art knowledge. However, it won't happen with tepid enthusiasm. We must have some muscle to command equal access to technology. I think this will be a test of democracy. I'm willing to help. I'm a sixty-four-year-old grandma.

Joan Orfe
Willingboro, New Jersey

Principal Approval

I read my first issue of *FamilyPC* during my family's recent visit to Epcot Center at Disney World. Much of my leisure time in Florida was spent reading articles in your magazine. Then I bought the newest issue at the Orlando airport, which made the airplane trip home to Wisconsin seem like

THINK LIKE A CHILD.



the shortest one ever.

I'm an elementary school principal, and I've shared a number of your articles with my staff at school. I find that I am able to understand the information and apply many of the ideas immediately.

By the way, "Bridging the Gap" by Robin Raskin was great reading.

Brenda K. Pedretti
Readstown, Wisconsin

Images Are Everything

FamilyPC is a good publication that suffers badly from a Windows emphasis. Even though "How to Buy a Computer" (April) clearly states that the Macintosh is easier to use, and although all the leading universities listed in Family Shopper (page 168) in the same issue listed Macintoshes as more popular, almost all of the screen images in articles on applications that come in both Macintosh and Windows versions are Windows screens.

Preb Stritter
Shelburne, Vermont

Common Sense from the Top

There were two columns in *FamilyPC*'s March issue that made me feel especially comfortable with and confident in your magazine. The first was "Online Common Sense" (Editor's Note) by Jake Winebaum, editor and publisher. The second was "Dealing with Doom" (Double Click) by Robin Raskin.

Knowing that those at the top are concerned with family values gave me great respect for the content of the whole magazine. I'm glad to know that what concerns me as a responsible parent is what also concerns your editors.

Robert Mahlstedt
Lakewood, Colorado

Delete the Expletive

I just read your April issue, and, as usual, I enjoy *FamilyPC* immensely. However, I think there was an inappropriate article in the GigaBrain section of MEGAzine (page 192). One of your April Fool's jokes delivered the message "Learn to spiel, danmit." This language is not appropriate for children. I do not allow my child to say "damnit," and though I realize it is a very mild expletive, it just doesn't seem that *FamilyPC* should encourage children to curse. I realize that this is a nit-picking point, but I just wanted to point it out.

Jami Stewart
Auburn, Washington

Expanding Attention Spans

FamilyPC addresses the concerns and tweaks the curiosity of our whole family. Our ages range from ten to forty-five, and often even I can't hold everyone's attention.

Mark Morrison & Family
Woburn, Massachusetts

They're smart. They're witty. They're downright furry. Who better to teach your child than the lovable characters of Sesame Street®. They're all here in The Sesame Street CD-ROM Library, a collection of 3 CD's (for PC and Mac) full of interactive games designed to help your child learn spelling, early math, phonics, classification skills and more. Watch as your child stars in the Let's Make A Word™ game show, becomes The Count's best math student in Sesame Street Numbers, or gets an entertaining introduction to the alphabet from Oscar, Snuffalupagus and the gang in Sesame Street Letters. (And that's just a small sampling of the fun.) To pick up your own copy, call 1-800-245-4525 or visit your software retailer. For a limited time get a free audio cassette of Sesame Street songs with purchase.

©1995 Children's Television Workshop. Let's Make A Word! is a trademark of ABC/EA Home Software. Sesame Street Muppets © Jim Henson Productions, Inc.

© 1995 Canon Computer Systems, Inc. Canon and BJC are registered trademarks and Bubble Jet is a trademark of Canon Inc. CCSI, 2995 Redhill Ave., Costa Mesa, CA 92626. In Canada, call 1-800-263-1121, Ext. 123

Your idea of an office has changed.

Your idea of great color hasn't.

The BJC-70 COLOR BUBBLE JET PRINTER

These days your office is likely to be wherever you happen to work. The bedroom. The boardroom. The backyard. And that work better be spectacular. So your printer has to go everywhere you do, producing brilliant color and true black output that's absolutely top drawer.

That's the beauty of the BJC-70 Color Bubble Jet™ Printer from Canon®. First, you get 720 x 360 dpi resolution (really crisp quality) and 4 page-per-minute laser speed in black and white. On top of that you get bright, vibrant colors.

Sharp, fast, brilliant colors and true blacks.

All in one sleek, cool, economical little package.

But don't let the size fool you. The BJC-70 auto-feeds 30 sheets at a time. And it's so rugged we offer a two-year limited warranty including free InstantExchange.

Feeds 30 sheets automatically.

Naturally, it's as easy to use as it is to carry.

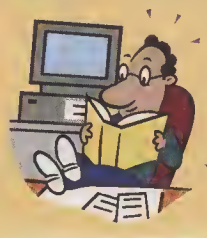
It even comes with our Color Advisor software that automatically picks the colors that make you look your best.

So give us a call at 1-800-848-4123, Ext. 123. Because the BJC-70 Color Printer is going to be giving you all kinds of new ideas.

Canon

FamilyPC

Reader Hotline



We want to hear from you. *FamilyPC* is a place for you and your family to share computer experiences, projects, tips, and questions with families from around the country. Here's how to let us know what you're thinking.

Name Your Favorite Games

The opinions of young readers of *FamilyPC* are needed for a survey called Name Your Favorite Computer Games. We invite children to send us the names of the computer games they most enjoy. We plan to publish a list of their top picks in an upcoming issue. Kids, cast your votes by June 30, 1995, via e-mail (America Online: screen name **FamilyPC**) or by writing us at Reader's Choice, *FamilyPC*, 244 Main Street, Northampton, MA 01060.

Wanted: Your Great Ideas

Is there something unique your child (or your whole family) does with a computer you think would be of interest to other families? Each issue, in My Great Idea, we'll highlight the best family computing idea and the family that thought it up. Please submit *your* great idea in a letter to My Great Idea Editor, *FamilyPC*, 244 Main Street, Northampton, MA 01060. Fax: 413-582-9070. America Online: screen name **FamilyPC**. Please include a daytime telephone number for verification purposes. We'll pay $25 for each great idea we use.

MEGAcool Tips & Tricks

If your child is into doing neat tricks on your family's computer, have him tip us off. Each month our MEGAzine editors will publish the best ideas, questions, and jokes they get. Address letters to MEGAzine, *FamilyPC*, 244 Main Street, Northampton, MA 01060. Fax: 413-582-9070. America Online: screen name **FamilyPC**. Please include a daytime telephone number. For every idea we use, we'll send out a serious MEGAzine surprise.

Fun & Creative Computing

Is there an interesting or fun project you and your kids do on your computer? Describe the project and how you did it, and it might appear in our Creative Computing or Fun section. Drop a line to Creative Computing Editor, *FamilyPC*, 244 Main Street, Northampton, MA 01060. Fax: 413-582-9070. America Online: screen name **FamilyPC**. Please include a daytime telephone number. We'll pay $25 for each idea we use.

Maybe We Can Help!

If your sound card won't play music, your printer stopped printing, you keep getting cryptic error messages, or your system just won't work, maybe we can help in our Help! section. Send your questions to Help!, *FamilyPC*, 244 Main Street, Northampton, MA 01060. Fax: 413-582-9070. America Online: screen name **FamilyPC**.

Tell Us How We're Doing

We'd like to hear what you enjoyed, didn't enjoy, and want to see in *FamilyPC* in the future. Please fill out our Reader Survey on page 151 or send letters, ideas, and suggestions to Letters to the Editor, *FamilyPC*, 244 Main Street, Northampton, MA 01060. Fax: 413-582-9070. America Online: screen name **FamilyPC**.

The OL410e prints presentation-level output at a simple-text-and-graphics price.

It's designed for laser class output so you can print great looking sales presentations, newsletters and direct mail flyers easily and affordably.

The LED printhead carries a 5 year limited warranty and the print speed is a fast 4 pages-per-minute.

And there's also a Mac version with Adobe™ PostScript®—the OL410e/PS.

To take advantage of this opportunity, call 1-800-OKI-TEAM ext. 580 (U.S. or Canada) for a dealer near you.

The

OKIDATA

a division of Oki

OL410e and 410e/PS

Personal Printers.

©1995 Okidata. Okidata Reg. T.M. M.D. Oki Electric Industry Co., Ltd. Adobe, PostScript are trademarks of the Adobe Systems Corp. which may be registered in certain jurisdictions.

KEEPING PACE

WHAT'S NEW FOR FAMILIES

Computers on Parade

LIKE FASHION HOUSES FROM Manhattan to Milan, computer makers are rolling out their new summer lines. And though nary a navel is exposed, you can only describe these new machines as hot.

The big news from Compaq (800-345-1518) is the inclusion — for the first time — of Pentium-class processors in the family-oriented Presario line (see Hardware Reviews in this issue). Both the Presario 700 (desktop) and Presario 900 (minitower) series come with what Compaq is calling "586-class" processors (only the "all-in-one" 500 series remains 486-based). At present, the only 586-class processors available are Intel Pentiums. In future, however, you can expect Compaq to offer systems with non-Intel 586-class processors, such as the K5 from Advanced Micro Devices (see "Pentium Challengers," April *FamilyPC*, page 26). The other significant enhancement in the new Presarios is the inclusion of quad-speed CD-ROM drives throughout the product line.

Another vendor pushing the 586 moniker (and perhaps thus signaling a willingness to use alternative sources for Pentium-class processors) is Epson (800-289-3776 or 310-782-0770), which will soon ship its new ActionTower 7000 and 8000 series. The 7000 series features 100-MHz 486 chips, while the 8000 series uses the 75-MHz Intel Pentium. All ActionTower systems offer 14,400-bit-per-second (14.4-kbps) fax modems, integrated telephony, and quad-speed CD-ROM drives.

Basic Black Acer America gives you the option of buying your AcerAcros minitower system in a stylish black case.

Acer America (800-223-7763) has beefed up the communications functions in its new AcerAcros systems. All the systems come with software for easy Internet access, and some even have 28.8-kbps modems, the fastest generally available. Quad-speed CD-ROM drives are standard on almost all of the new configurations. In addition, Acer now offers a three-year warranty as standard. Finally, for the fashion-conscious, Acer offers its minitowers in an optional black case.

Another company stressing communications

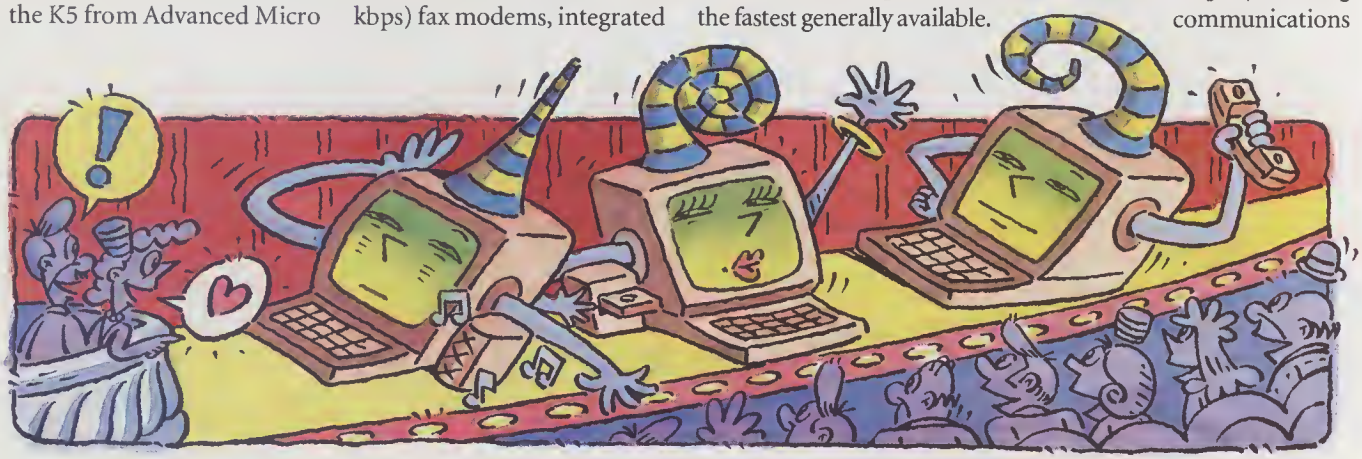


ILLUSTRATION: DAN BRAWNER

is Canon (800-848-4123 or 714-438-3000), which bundles Internet access software such as The Pipeline, Net Cruiser, and Chameleon with its Innova Media PCs. Each system also comes with either a 14.4- or a 28.8-kbps modem, a quad-speed CD-ROM drive, and a three-year warranty.

The summer lineup from AT&T (800-447-1124) brings both Pentium power to its Globalyst line of home-office computers and a new approach to customer service. If you call AT&T while unpacking your new Globalyst, a customer-support representative will walk you through the setup process.

The Globalyst's communications support is second to none. In addition to providing telephony functions that the whole family can use, such as voice mail and Caller ID, the Globalyst can route incoming electronic mail to a pager and enable document conferencing for home-office workers. Like the rest of the industry, AT&T is also moving to quad-speed CD-ROM drives.

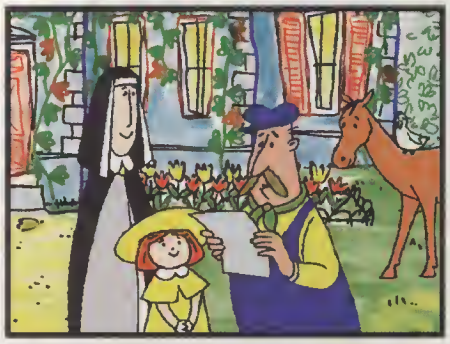
Long known for its high-quality peripherals (monitors, CD-ROM drives, and printers), NEC is pushing its new line of family PCs in a big way. The biggest news here, however, is not the hardware but the software. All members of the NEC Ready 7020 line will come with Microsoft Bob preinstalled. Called a *social interface* for its use of animated guides, Bob is designed to make PCs accessible to anyone. NEC is also hoping that Bob will give it a boost up in the competitive family PC market.

—*Bob Ryan*

Beyond Accessories **With the Ready 7020 line, NEC makes its move into the family PC market.**

Madeline Comes Home

IF YOUR FAMILY CAN'T get enough of the Madeline books, it's time to fire up your computer. Madeline and the Puppet Show is the first in a series of titles about the big-hearted French girl. The program takes your four- to seven-year-old child on an adventure, helping Madeline and her school chums organize and put on a puppet show by writing invitations, painting backdrops, and creating puppets.



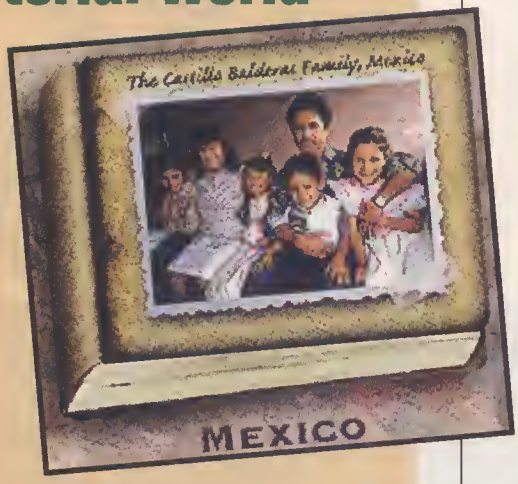
Good Deeds **Help Madeline and her friends put on a puppet show for charity.**

Madeline and the Puppet Show will be available this summer from ABC/EA Home Software (800-245-4525) on Windows CD-ROM. It is expected to sell for $49.95 street.

—*Kurt Carlson*

Living in a Material World

BASED ON THE BOOK by the same name, Material World: A Global Portrait is a photo- and information-rich visit with thirty families in thirty countries. Sixteen photojournalists collaborated on this CD-ROM, living with these statistically average families for a week and taking pictures of them and their possessions. The CD-ROM's big advantage over the book is the flexibility you get in accessing the information.



One World **Material World puts you in touch with cultures from all parts of the globe.**

Material World is easy for elementary school–age kids to navigate, with buttons that lead to descriptions of each country (from the U.S.A. and Ethiopia to Iceland and India), photo albums of the families, short video and audio clips, facts and figures that compare the countries and their peoples, and questionnaires that each family completed.

Although the photos are terrific — they illustrate the vast material differences between countries — it's the questionnaires that show our similarities. Families from Texas to India generally think of themselves as "comfortably off," worship devoutly, and want the best for their children.

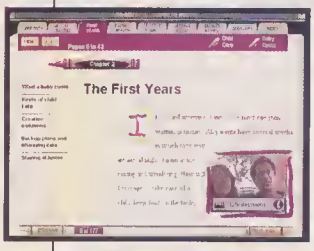
Published by StarPress Multimedia (800-782-7944 or 415-274-8383), Material World: A Global Portrait comes on a Mac and Windows CD-ROM and sells for $39.95.

— *Gregg Keizer*

Bringing Up Baby

THERE'S A PRACTICAL new baby gift on the market that's helpful, easy to mail, and doesn't require difficult pink or blue decisions. You may even want one yourself.

Parents' Guide to Money from Intuit (800-624-6930) helps new and expectant parents navigate through the financial wrinkles that come with a new baby: child-care expenses; life, disability, and health insurance coverage; saving for — *gulp* — college. It will even show you how you can put something away for your retirement. It also includes video clips of parents discussing various financial concerns, a feature that adds a human dimension to the program.



Pressure Drop Lessen the financial worries that accompany parenthood.

Parents' Guide to Money is available on Windows CD-ROM. It retails for about $30 at software and computer retail stores. Intuit is also selling the product directly.

—Jo-Ann Johnston

Beyond Bob

THIS YEAR, IT SEEMS like everyone is coming up with new ways to make using a DOS/Windows system easier. From Microsoft Bob to Packard Bell's Kidspace, companies are trying to put a comfortable wrap around Windows. Even the imminent release of Windows 95, with its reportedly easier-to-use interface, hasn't stemmed the tide of alternatives. In this vein, 4Home Products brings you Simply Village ($49.95; expected street price, $30; 800-773-5445), which offers some interesting twists on the standard computer interface.

Simply Village re-creates a village square where you can have different buildings house the various applications you want to use. For example, the bank building could house your Windows calculator, your personal finance software, and launchpads for any finance-related online activities you like to tap into. Simply Village also offers a billboard that gives you instant access to up to twenty-four of your most frequently used applications. If you need help, you are referred to the friendly inhabitants of each building.

In addition to the village square, Simply Village comes with a Power User mode (4Home Productions compares it to the Norton Desktop) and the Kid's mode, which provides a souped-up treehouse environment. You can test any of the three Simply Village interfaces for about $7 by taking advantage of 4Home Productions' try-and-buy program. Call the company for details.

Your Hometown The friendly inhabitants of Simply Village are ready to answer your computing questions.

—Chris Begole

New Color Printers

COLOR PRINTING technology is improving at an astounding pace, providing brighter colors, shorter print times, and lower prices. The two latest examples are the Hewlett-Packard DeskJet 660C (HP, 800-752-0900) and the Canon BJC-70 (Canon Computer Systems, 800-848-4123).

HP's DeskJet 660C (and DeskWriter 660C for the Mac) replaces the popular 560C. New ink formulations and cartridge designs help provide the 660C with color graphics and text printing that is sharper, brighter, and less expensive per page. A pigment-based black ink helps produce richer, deeper blacks, and the new color inks dry faster and fade less over time.

Separated at Birth The Hewlett-Packard DeskJet 660C (left) is for DOS/Windows systems, while the DeskWriter works with Macs.

HP has increased print resolution to 600 by 600 dots per inch for black and 600 by 300 dpi for color, and print speed is now rated at 4 pages per minute for black and 1.5 ppm for color pages (or almost double the speed of the 560C). HP is also offering an optional fax receiver ($199) that plugs into the parallel or serial port and turns the 660C into a plain-paper fax machine. The 660C is expected to sell for about $499 street.

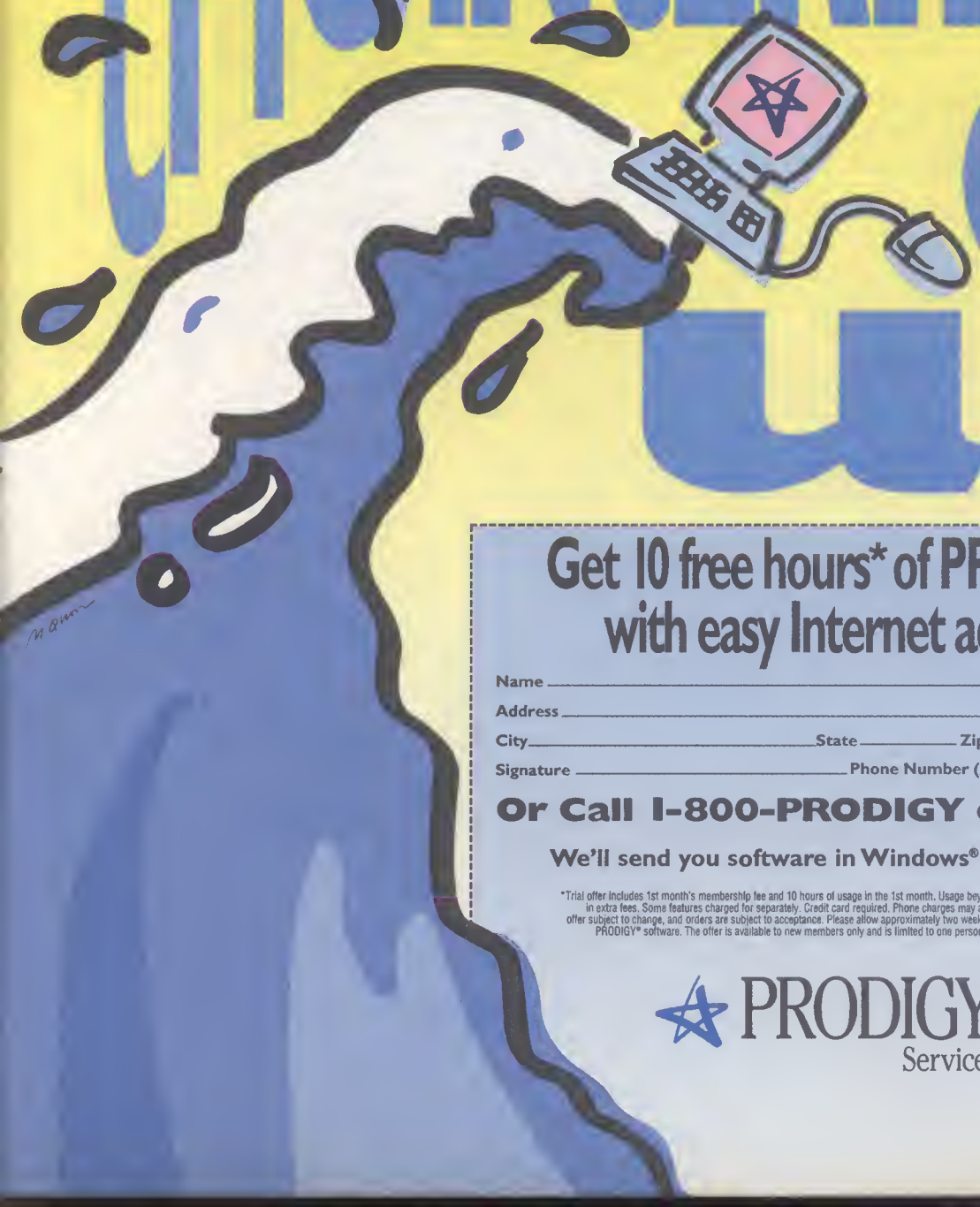
The Canon BJC-70 answers the question of how much color printing you can put into a 3-pound package — and the answer is, lots. Print resolution is 720 by 360 dpi in black and 360 by 360 dpi in color. Sample documents looked very good, though not quite up to the output from printers like the HP 660C or Canon's own BJC-600e.

Small Wonder Canon has dubbed the BJC-70 a *virtual office* printer, because you can move it virtually anywhere.

You can move the diminutive BJC-70 just about anywhere: the sleek black case takes up just 6.2 by 11.8 inches of desk space and is a wafer-thin 2.2 inches thick. An optional battery lets you print 200 pages without AC power. The BJC-70 is expected to sell for $399.

—Jon Pepper

SURF the INTERNET on us



Get 10 free hours* of PRODIGY with easy Internet access!

Name _____ 32656/7951

Address _____

City _____ State _____ Zip _____

Signature _____ Phone Number (____) _____

Or Call 1-800-PRODIGY ext. 445

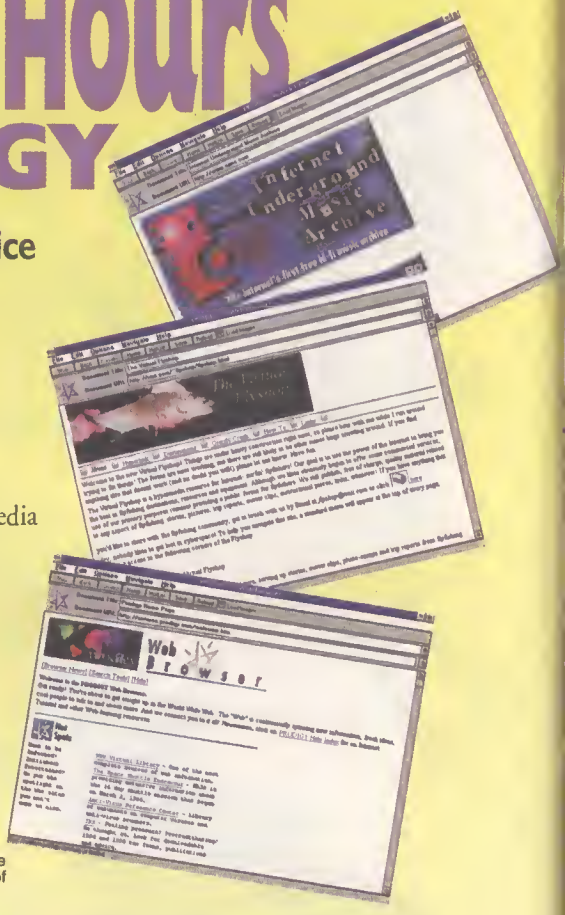
We'll send you software in Windows® 3.5 Format

*Trial offer includes 1st month's membership fee and 10 hours of usage in the 1st month. Usage beyond trial offer will result in extra fees. Some features charged for separately. Credit card required. Phone charges may apply. Limited time offer subject to change, and orders are subject to acceptance. Please allow approximately two weeks for shipment of your PRODIGY® software. The offer is available to new members only and is limited to one person per household.

PRODIGY® Service

Homework Helper!™
New on PRODIGY

COMMUNICATE 90'S STYLE WITH 10 FREE HOURS OF PRODIGY



Nobody makes the Internet easier than PRODIGY

Send an E-Mail to Boston or Brazil. Visit the White House and send a message to the President or download annual reports from the SEC. PRODIGY's Web Browser gives you full point and click access to the exploding world of the Internet--and there are no extra charges.

And be sure to look for PRODIGY's new *Communities of Interest** where everything you want to know and everybody you want to talk to on a specific topic are all in one place. Computers, genealogy, movies, games--whatever your passion--you can get the latest info and Chat live with others without having to search all over the net.

No other online service gives you all this

- PRODIGY live Chat
- PRODIGY Bulletin Boards
- USENET Newsgroups
- The latest stock quotes
- A regularly updated encyclopedia
- Consumer Reports online
- Computer games
- Latest Sports scores
- Banking Online
- Sports Illustrated for Kids
- Strategic Investor
- Much, much more

*Communities of Interest are scheduled for availability in the Summer of 1995. The PRODIGY Web Browser is available only for Windows®. Windows is a registered trademark of Microsoft Corporation. PRODIGY is a registered trademark of Prodigy Services Company. © 1995 Prodigy Services Company. All rights reserved.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST–CLASS MAIL/PERMIT NO. 98/JOHNSON CITY, TN

POSTAGE WILL BE PAID BY ADDRESSEE

PRODIGY® Service
PO BOX 8667
GRAY TN 37615-9967

Getting started is simple

PRODIGY may already be installed on your computer. Just look for the PRODIGY icon, point and click. Otherwise, call us at 1-800-PRODIGY or mail in the coupon and we'll send you the free software. You can also download the software directly from the Internet at WWW location:
www.astranet.com
After your 10 free hours, the monthly fee is only $9.95 for five hours.

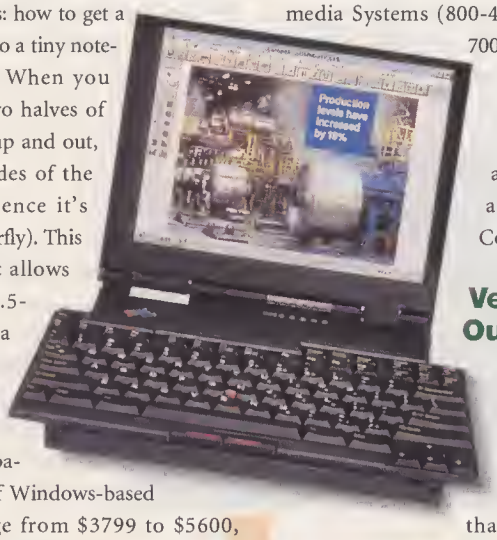
Call 1-800-PRODIGY ext. 445

PRODIGY® Service

NEW PRODUCTS

IBM's Butterfly Unfolds

IBM's ThinkPad 701C (IBM PC Co., 800-772-2227 or 914-766-1900) solves one of the great computing dilemmas: how to get a full-size keyboard into a tiny notebook PC package. When you open the lid, the two halves of the keyboard pivot up and out, overhanging the sides of the plastic housing (hence it's nicknamed the Butterfly). This bit of design magic allows IBM to stuff an 11.5-inch keyboard into a case just 9.7 inches wide. Other touches include built-in video and sound capabilities and plenty of Windows-based power. Prices range from $3799 to $5600, depending on the configuration.



Kits o' Quad Speed

If your PC isn't quite up to today's flashy software, several vendors are now shipping multimedia upgrade kits featuring quad-speed CD-ROM drives, as well as a sound card, speakers, and a plethora of CD-ROM titles geared to all types of users:

Creative Labs' Sound Blaster Multimedia Home 4x ($579.95; 800-998-1000 or 408-428-6600) provides all you need for high-speed family multimedia, including twenty-four software titles such as Quicken, Wing Commander II, Pagan: Ultima VIII, and much of the Microsoft Home collection.

Media Vision (510-770-8600) has two new kits: the $499 MV 3200 offers a high-end Pro Audio Wavetable/SRS sound card, powered speakers, and eleven multimedia programs (like Compton's Interactive Encyclopedia and 7th Guest); the $349 MV 2200 goes for affordable with a 16-bit sound card and eight multimedia titles. Both come with a CompuServe starter kit.

Look for entertainment from the Turtle Beach Entertainment Quad Speed Upgrade Kit ($449, 800-645-5640 or 717-767-0200). Its titles include Star Wars Rebel Assault Special Edition and Robocop 3D. The 16-bit wavetable-capable Monte Carlo sound card is billed as 100 percent game-compatible.

The Multimedia Kit 3000 is a $399 (street) kit with an installation video. Diamond Multimedia Systems (800-468-5846 or 408-325-7000) calls it the Educator Kit 3000, because its bundle includes titles for smaller kids, such as Alphabet Blocks and Thinkin' Things Collection I.

Versatile Video Output

Creative Labs (800-998-1000 or 408-428-6600) is shipping TV Coder External, a video-output device that lets you connect a PC to almost any video display, including televisions, VCRs, and video projectors. For $229.95, this portable, external video-output system provides 16.7 million colors at 640- by 480-pixel resolution. It lets you adjust brightness, contrast, and color for optimal viewing of video presentations and computer games.

New Monitors from ADI

ADI Systems (800-228-0530 or 408-944-0100) has added the 14-inch MicroScan 3V ($329 street) and 15-inch MicroScan 4V ($409 street) to its family of monitors. The monitors

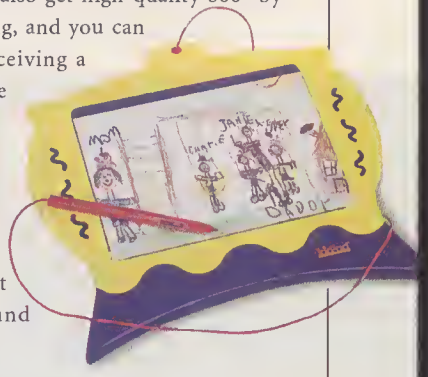
come equipped with a built-in microprocessor intelligence feature that helps eliminate the need to frequently adjust size, centering, and geometrical settings. Both high-resolution displays feature 0.28-millimeter dot pitch and a "sleep" function that complies with EPA Energy Star requirements.

Low-Cost Laser

New from Canon (800-848-4123 or 714-438-3000) is the DOS/Windows-compatible LBP-430W laser printer ($549). This printer provides a print speed of 4 pages per minute, 300 dpi, and a straight paper path for the manual feed of card stock, transparency film, and envelopes. A 100-sheet cassette handles regular letter- and legal-size plain paper. The LBP-430W uses the Microsoft Windows Printing System to help you track the printing process on-screen.

Extend Your Reach

Hewlett-Packard's (800-474-6638) OfficeJet LX combines a printer, fax machine, and copier into one package that uses about the same space as a printer alone. New in the LX version is the ability to send faxes directly from any Windows application and receive faxes to your PC or the OfficeJet. HP's software provides a graphical display of system status and setup messages. You also get high-quality 600- by 300-dpi printing, and you can print while receiving a fax or otherwise do a number of things at once. The OfficeJet LX lists for $959, with an expected street price of around $800.

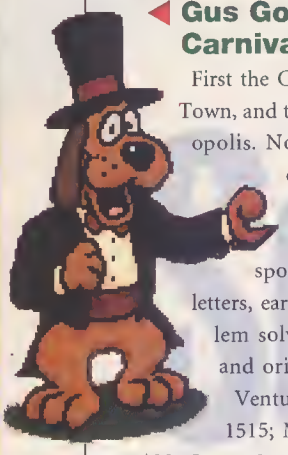


Hop onto the KidPad

Designed specifically for children ages 2 and over, KidBoard's (800-926-3066 or 612-926-7995) new KidPad is a $139 digitizing tablet with a 6- by 8-inch screen ready to take some abuse: the oversize yellow unit comes with an attached red stylus-pen and is made from a special durable plastic — like that used for toys, not computers. Using the included overlay, kids can trace any of the 100 included drawings to start their careers in digital artistry. The KidPad works with DOS/Windows computers and Macintoshes.

New Product items are based on information supplied by the vendor, product demonstrations, and interviews. Inclusion does not represent a recommendation.

NEW PRODUCTS



Gus Goes to the Kooky Carnival

First the CyberBuds appeared in CyberTown, and then they popped up in Cyberopolis. Now they're back to entertain children in yet another venue — the carnival. Through dozens of activities and hot spots at the carnival, kids learn letters, early geography, and basic problem solving, all to the beat of lively and original music. (Modern Media Ventures, 800-530-5080 or 415-546-1515; Mac and Windows CD-ROM, $39.95; ages 3 to 8.)

Exploring the Lost Maya

Focusing on the period of 150 B.C. to 1500 A.D., this disc lets you explore the history and culture of the ancient Mayan people. The program features interactive site maps; more than 600 photos of sites in Mexico, Honduras, Belize, and Guatemala; video; original music; narration; and extensive textual information. The travel section gives tips on how to plan a trip to do some more exploring, including what to see and what to avoid. (Sumeria, 800-478-6374 or 415-904-0800; Mac and Windows CD-ROM, $49.95; ages 10 and up.)

The Gigglebone Gang Goes to Pantsylvania

With songs, games, activities, and general hilarity abounding, kids learn the answers to such eternal questions as "Why is the sky blue?" and, more important, "Why is chocolate brown?" The inhabitants of Pantsylvania, including Svelte Velma the Swine, Clyde the Parrot, and Bunji the Frog, also show kids why volcanoes erupt and how chameleons change color. The Gigglebone Gang first appeared in AlphaBonk Farm, a bright, irreverent title that teaches letters and problem solving. (Headbone Interactive, 800-267-4709 or 206-323-0073; Mac and Windows CD-ROM, $49.95; ages 4 to 9.)

Blockbuster Video Guide to Movies and Videos

The newest entrant into the multimedia movie guide market, this CD-ROM features more than 21,000 videos and TV shows, which you can look up by actor, director, and ratings. There are more than 5000 photos, 1200 biographies, and more than forty video clips. The listings and reviews are updated monthly and can be accessed online. (Creative Multimedia, 800-262-7668 or 503-241-4351; Windows CD-ROM, $29.99 street.)

PRETEND YOU'RE A KID AGAIN.

YOU HAVE TO DO A REPORT ON DESERTS (YAWN) SO YOU CLICK ON THE DESERT BIOME—AND suddenly...

With 3D Atlas, you don't just read a population statistic, you meet the people of each country. Over 800 photos show the people, landscapes, and architecture around the world.

Comic Creator

Kids make their own cliff-hanging serials with this comic book creator. The CD-ROM comes with more than 100 backgrounds and a host of characters (ten heroes, eight villains, and 300 extras) to help the aspiring writer create a whole new comic world. Kids can even import their favorite superhero to make the story more personal. (Putnam New Media, 800-631-8571; Mac and Windows CD-ROM, $34.95 street.)

How Would You Survive As...

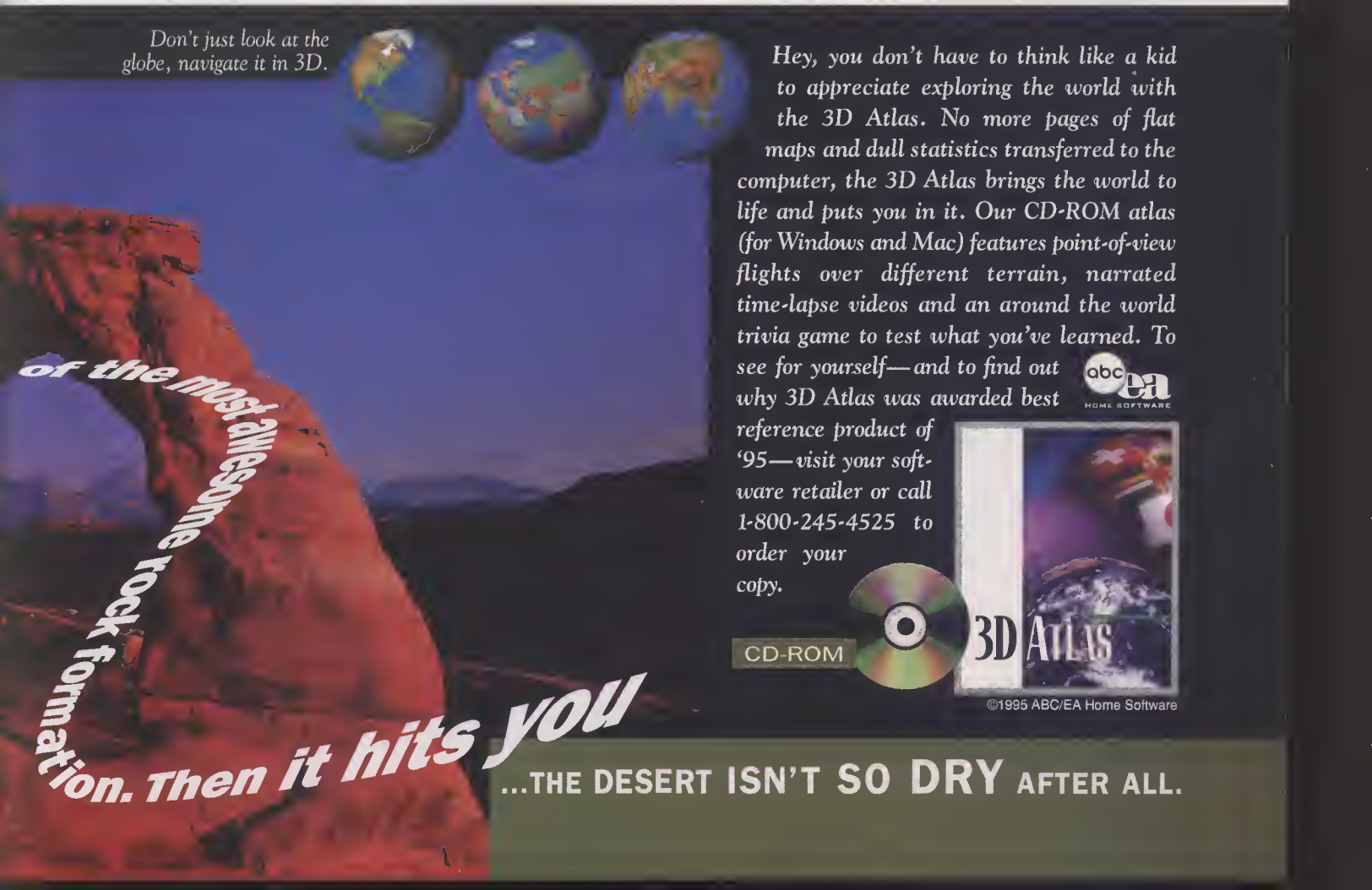
Travel back in time to ancient Egypt or visit the civilizations of the Vikings and Aztecs in this time-travel adventure that gives young people a glimpse of everyday life in other worlds. Using illustrations, animation, and sound effects, kids see what ancient peoples ate, how they made a living, what they wore, and how they communicated with each other. A quiz at the end of the trip tests kids' newfound knowledge. (Grolier Electronic Publishing, 800-285-4534 or 203-797-3530; Mac or Windows CD-ROM, $49.95.)

JetSki Rage

Pick your way through explosive buoys, spike logs, sharks, and bounty hunters as you race your jet ski on San Francisco Bay. The newest release from Velocity features a 3-D rendering effect that makes the crashing waves seem real, and a 360-degree first-person perspective that brings you into the action. The game also features an original sound track and lets you create unlimited race courses. (Velocity, 800-856-2489 or 415-776-8000; Windows CD-ROM [Mac version is planned], $64.95; ages 12 and up.)

How Your Body Works

This CD-ROM gives children and adults a cell's-eye view of the human body and its twelve systems. Kids can get up close to a human heart, hear it beat, and watch its valves open and close as blood flows through. Based on the best-selling Ziff-Davis Press book of the same name, the software features 200 photos, original music, twelve animated tours, and more than an hour of video. One module offers information on prescription and over-the-counter drugs, and another contains twenty-five radio-style consumer health segments. The lab also features three scavenger hunts to keep the kids amused. (Mindscape, 800-234-3088 or 415-883-3000; Mac or Windows CD-ROM, $49.95; ages 12 and up.)



©1995 Microsoft Corporation. All rights reserved. Microsoft is a registered trademark and "Where do you want to go today?," Bob and the Bob logo are trademarks of Mic

Helpfulness. Now there's a good quality. And helpfulness, well, that means Bob.™

Bob features the newest thing in software: a social interface. Which means Bob is very helpful. Bob has personal guides—on screen animated characters—that lead you through every step of the way. They make suggestions, answer questions and help your computer adjust to the way you like to work.

And Bob is so helpful, you don't even need a manual. All you need is an 8 megabyte computer.

Bob will help you balance your checkbook, write letters, exchange electronic mail, keep a calendar, record addresses, play GeoSafari and access Windows®-based programs. Bob is one accommodating friend.

To meet Bob for yourself, stop by a local software retailer. Just ask for Bob. Bob wants to lend a helping software hand.

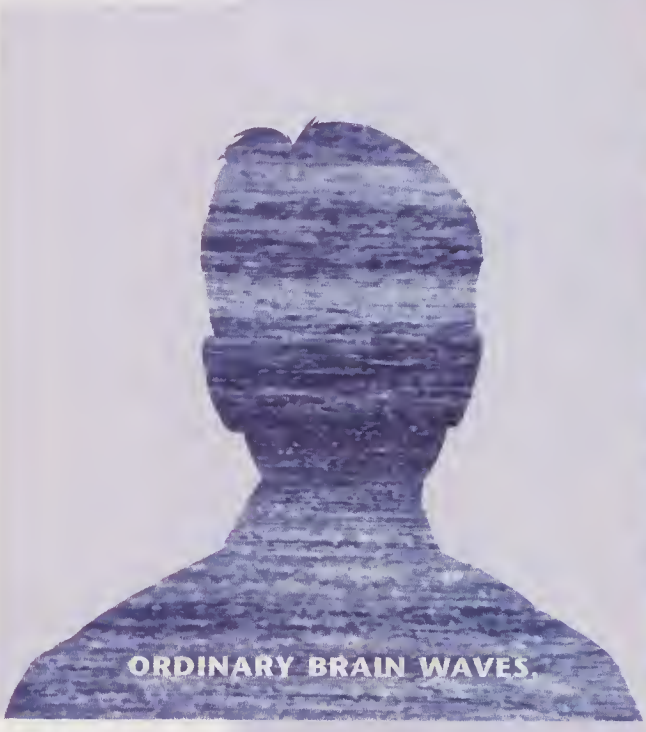
Microsoft®

where do you want to go today?™

tered trademarks of Microsoft Corporation for its Windows operating system products.

SUPPOSE YOU'RE READING A FIFTH GRADE SCIENCE BOOK. Yawn, not much to excite the neurons in here. Now, turn a 180° on the fun scale.

Windows,™ Encarta™ and Works. As well as Prodigy® and America Online.® Here's a few more things you won't find on any ordinary computer.



You're seated in the cockpit of the space shuttle. Far below, mountains, continents and oceans spin by. Click the mouse and in the astronaut's own voice, history repeats, "...one giant step for man-kind."

With an AST Advantage!,® you haven't just read the information. You've listened to it, relived it, opened your eyes and let your imagination run away with it.

You can run all the latest computer software. In fact, we've already loaded Microsoft® Windows,™ Encarta™ and Works. As well as Prodigy® and America Online.®

Our own AST Works. It makes everything easier, from start-up to getting help from a real person right on the screen. Now isn't that the sort of ingenious thinking you'd expect from one of the world's largest PC manufacturers? We've even built in the handy AST Teleworks. It's the ultimate communication system with fax/modem, voice mail and speakerphone. For additional information please call us at 800-876-4AST. Then turn on the Advantage! And open your mind.

YOU'LL LIKE THE WAY WE WORK™

486DX2 or Intel Pentium Processor.

Up to 8 MB RAM, and 1 GB hard drive.

Quad speed CD-ROM, microphone, speakers, Soundblaster® 16-bit sound.

AST® COMPUTER

©1994 AST Research, Inc. All rights reserved. AST and Advantage! are registered trademarks of AST Research, Inc. AST Computer, the AST logo and "You'll Like The Way We Work" are trademarks of AST Research, Inc. Pentium is a registered trademark of Intel Corporation. All other product or service names mentioned herein may be trademarks or registered trademarks of their respective owners. Configurations and specifications may vary and are subject to change without notice.

HELP!

by Scot Finnie, Marty Jerome, and Wendy Taylor

Yes, personal computers are technological marvels, but they still have a long way to go before they match the ease of use of your toaster. Until then, you have Help!, which this month troubleshoots your problems, supplies more tricks of the trade, and teaches you a thing or two about your critical Windows system files.

Troubleshooting

Learn how to share files between Windows and Mac computers, what to do when you can't find a menu, and how to recover accidentally deleted program groups

Mac to PC and Back

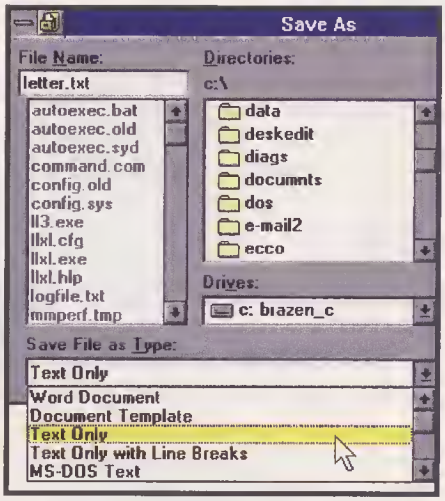
Q *My online pen pal uses a PC, and I use a Mac. When we send each other attached files created in our word processors, we can't read them. How can we keep this language barrier from destroying our relationship?*

A The easiest solution is to save and send your word-processing files in a format that your pen pal's PC can read, and vice versa. This applies to other types of files as well, including graphics, spreadsheets, sound clips, and almost anything else you might want to swap.

Virtually all newer word-processing and other programs offer a Save As option that lets you choose from a list of file formats. Most likely, your pen pal's program will be able to read directly or import one or more of those formats. For example, if you're using Microsoft Word 5.1 for the Mac and your friend is using WordPerfect 6.0 for Windows, you can save to WordPerfect 5.1 format. When it opens the file, WordPerfect 6.0 will automatically convert the file to its own format.

In the worst-case scenario, in which your friend uses a less popular DOS word processor, you can save your file in a text-only or ASCII file format. Virtually all word processors can open an ASCII file, although you may have to manually clear some garbage characters out of it.

Keep in mind, too, that though your Mac supports long filenames, most PCs do not. When you save your file to a PC format, change its name to one that has no more than eight characters, followed by a period and then three characters (e.g., JOHN.LET). This will ensure that the filename is valid on both the PC and the Mac.



Save As... Many applications, such as Word for Windows (shown here), provide a Save As option that stores files in different formats.

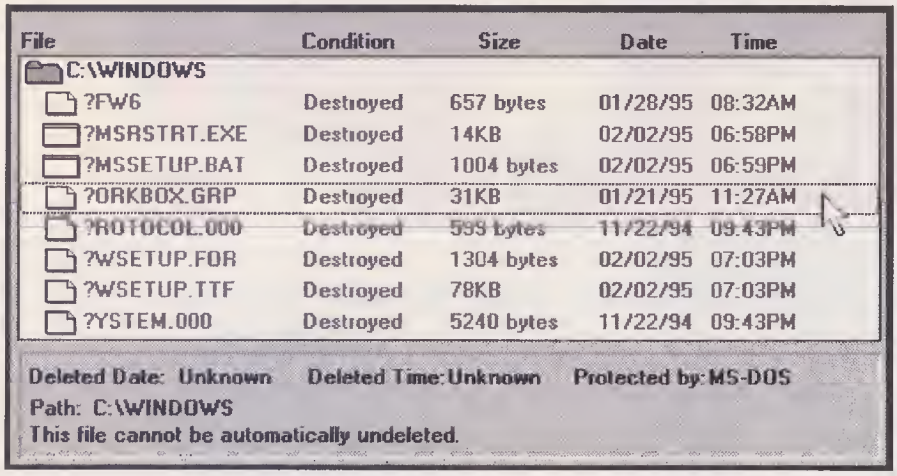
Missing File Menu

Q *The File heading in Program Manager is no longer visible on my PC. The only menu names I can see are Options, Windows, and Help. I reinstalled Windows, but that didn't help. How do I get File back?*

A First, check your monitor controls to make sure your image is centered. It's more than likely, however, that your Program Manager window is expanded to the point where it's off the screen on the left side.

If you can see the title bar (the colored area at the top where the words Program Manager appear), double-click on it. If you can see the File menu now, double-click on the title bar again. File will disappear once more. Then click once on the title bar and drag it to the right. That should bring the File menu into view. If this doesn't work, press Alt-spacebar to get the Control menu and then click on Move. (If Move is grayed out, double-click on the title bar and try the Control menu again.) Now use the arrow keys to move Program Manager back into view on your screen.

Next, you need to resize and reposition the Program Manager window the way you like it. Place the mouse pointer on the very edge of any of the window's four sides until a double-headed arrow appears. Then click and drag that edge to resize it. You can also put the pointer on any of the four corners and drag to resize two sides of the box at one time. When you've got things back to normal, make sure the Save Settings on Exit box



Lazarus Utility The Windows Undelete utility lets you recover inadvertently deleted files in most cases.

is checked under the Options menu. Then exit Windows and relaunch it. Things should be back to normal.

If the above doesn't solve your problem, there's another far less likely possibility. If you can see all four sides of the Program Manager window and there's no File menu, it's possible someone or something has modified your Windows installation. To check this, launch Notepad. Choose File, and then choose Open and type **progman.ini** under File Name. Under Directories, double-click on the Windows directory. Then click on OK to open the PROGMAN .INI file. If your problem lies here, you'll find an entry in this file that reads something like this:

[Restrictions]
NoFileMenu=1

You can either delete the NoFile Menu line from your WIN.INI file or replace the 1 with a 0. Then save the file, exit Notepad, and exit and relaunch Windows. If you own this PC, we recommend that you delete the entire [Restrictions] section of PROGMAN .INI (that is, the [Restrictions] heading itself and everything up until the next section header surrounded by brackets). Be careful not to delete other things in this file.

Oh, No — I Needed That Group Box

Q *I accidentally deleted a Windows Program Manager group box that contained icons for important programs, and now I can't launch the programs. How can I get my icons back?*

A If you're running DOS 6.0 or higher, try this. Exit to DOS, type **cd c:\windows**, and press Enter; then type **undelete** and press Enter. (Your PC may also have a Windows version of Undelete installed in a group box called Applications.) Undelete is a handy utility that restores many deleted files, especially if you use it as soon as you realize you've accidentally deleted something.

Undelete lists each deleted file it finds in a given directory, one at a time. You're looking for a file with a .GRP extension that named your group box. Undelete shows the first character of a deleted filename as a question mark. Press **N** for no after deleted filenames that don't match what you're looking for, and **Y** for yes when you find it. Then type the original first letter of your group box name to replace the question mark, and Undelete will bring the file back to life. Just type **N** after any remaining files Undelete offers you, and exit the program.

Now return to Windows. In Program Manager, choose, in order, File... New... Program Group, and click on OK. In the Group File field on the Program Group Properties dialog box, type the full name of the file you just undeleted. In the Description field, type the label you want the group box to have. Then press OK. That'll bring your group box and all its icons back.

If you don't find the deleted .GRP file in Undelete, or if you don't have DOS 6.x or a utilities program like Symantec's Norton Utilities 8.0 (DOS disk, $179, or Mac disk, $149; 800-441-7234 or 503-334-6054) that has a file undeletion tool, you have two other choices. The first is to reinstall all the programs whose icons were deleted; this is the best option for applications with multiple icons. The second choice is to create a new group box with the same name as the lost one, and populate it with the lost icons. To do this, use the Browse button in the Program Item Properties dialog box (in order, select File... New... Program Item, OK... Browse). You'll have to search in the directories of your installed applications for their main EXE files. For simpler programs, this is the way to go.

Mac Mouse Troubles

Q *My Mac's mouse has an annoying intermittent problem. Every once in a while the pointer freezes in the upper-left corner of the screen on start-up. To fix it, I have to restart the computer. A couple of days later, it happens again. What's wrong?*

A A frozen mouse pointer can have several possible causes. The most common is a software conflict with your Mac's extension files. However, a software conflict would likely cause a consistent problem rather than an intermittent one. So first check your mouse and keyboard cables to see if they're properly connected. Turn off your Mac.

Unplug the mouse and keyboard cable connectors and then reinsert them. If your mouse is plugged into the keyboard, try plugging it into the mouse port on the back of your Mac, or vice versa. Then start your Mac and see if that's fixed the problem. Wait a few days to make sure the

COREL DRAW!™

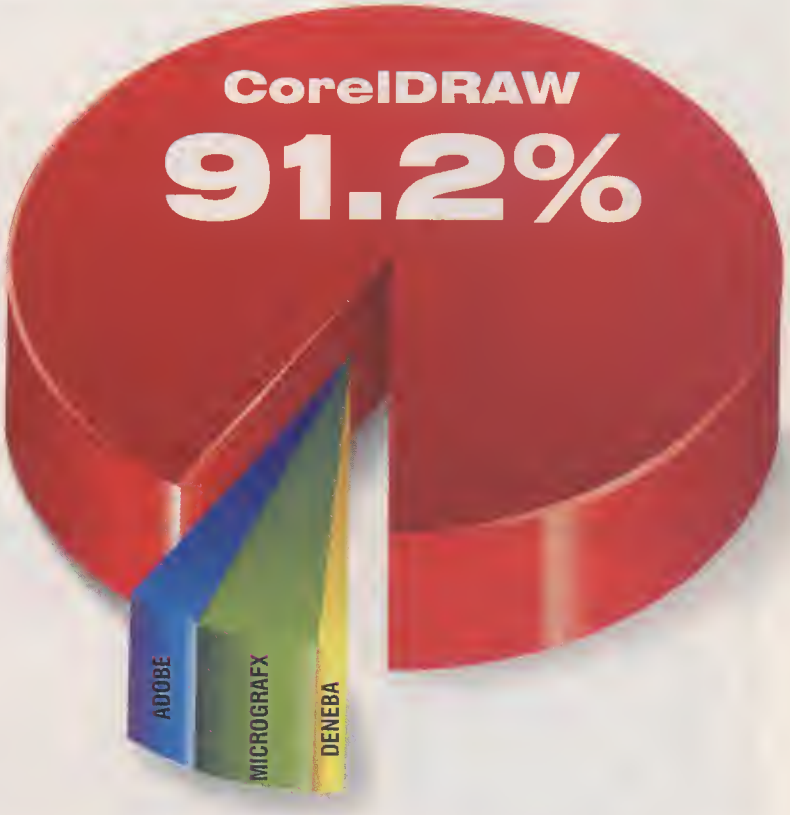
THE OVERWHELMING CHOICE OF PC USERS!

#1

Market Share
Windows Illustration Software
PC Data, December Sales, 1994

CorelDRAW
NUMBER ONE IN ILLUSTRATION

Company	Units	Sales
Corel	7609	1,586,519.83
Adobe	257	73,968.64
Micrografx	380	36,696.38
Deneba	98	15,899.24
Totals	8,344	1,713,083.90



The results are in!

CorelDRAW is the #1 choice for PC users. Year after year, survey after survey, CorelDRAW continues to dominate the illustration market with the best graphics software available.

Now even the additional applications (Corel VENTURA and Corel PHOTO-PAINT which are bundled in the CorelDRAW suite) are receiving "best of breed" accolades making the overall value unbeatable!

#1

Corel VENTURA*
NUMBER ONE in PUBLISHING

Product	S.L.P. (US$)	Score
Corel VENTURA 5	$595	6.8
QuarkXPress	$895	6.7
Aldus PageMaker	$895	6.2

3.5" disk version

INFOWORLD
Report Card Rating,
Desktop Publishing Software
March 20, 1995

#1

Corel PHOTO-PAINT*
NUMBER ONE in IMAGE-EDITING

Product	S.L.P. (US$)	Overall weighted score
Corel PHOTO-PAINT 5 Plus	$249	44
Micrografx Picture Publisher 5.0	$595	42
Adobe PhotoShop 3.0	$895	39
Fractal Design Painter 3	$499	38

3.5" disk version

PC World,
Best Buy Award,
April, 1995

COMPUTER City SUPERCENTER®
1-800-THE-CITY
1-800-843-2489

Call for direct connect to your nearest store.

CorelDRAW 5
$468.75
CD-ROM Version
$589.86 CD-ROM + 3.5" disks
US$ plus applicable taxes

Corel VENTURA 5 and Corel PHOTO-PAINT 5 Plus are also available as standalone products.

*Available as standalone products.

All product names are trademarks or registered trademarks of their respective companies.

COREL®

Call now for faxed literature!
1-613-728-0826 ext. 3080
Document #1071

KJR-0085

problem has gone for good.

A friend of mine had a Mac with the same symptoms. The problem in that case was literally a hardware kink. He was using a keyboard drawer that was too small for the Mac keyboard cable entering on one side and the mouse cable on the other. The mouse cable was bent at a 45-degree angle and was pinching the wires inside just enough to cause a problem. We fixed it by carefully straightening out the mouse cable and plugging it into the back of the Mac. Your Mac's mouse cable could be permanently damaged by being bent in this way.

Turn Up (or Down) the Volume

Q *I have a multimedia PC. When I run software that uses sound, the speaker volume is sometimes way too soft or too loud. Is there an easy way to adjust the volume?*

A There are at least three ways to adjust the volume of your PC's speakers. On most multimedia PCs, there's a wheel knob mounted on the sound card's backplate. To find it, follow your speaker wires back to the PC.

The second adjustment point is a Windows program of some sort supplied by the sound-card manufacturer. Look for a group box whose name matches that of your sound card or its manufacturer. These programs are sometimes confusing, but look for a knob resembling a stereo volume dial or sliding control, with a label that says something like Master Control.

Sound Master Most sound cards, such as Creative Labs' Sound Blaster, provide utilities that let you control sound volume under Windows.

The third volume-adjustment dial is on the speakers themselves. But for this to have much effect, you must either put batteries in the speakers or plug them into an AC wall receptacle. This isn't optional if you want full control over sound levels. To switch on the tiny amplifier that enables full use of the volume control, you usually have to push a button on either the front or the back of one or both of the speakers.

To avoid having to adjust the volume to match individual programs, follow these steps: Turn the sound-card wheel back and forth until you approximate a middle-level setting. If you sometimes run DOS programs that use sound, launch one and check its sound level. Adjust the volume on the speakers until the DOS program sounds right. Now launch Windows and run a Windows program that uses sound. Use the Windows sound-card utility to adjust the volume to your liking.

Hot Tips

Easy ways to save time and avoid PC frustration

Pentium PC Tip: Own a Pentium PC, or thinking of buying one? Make sure it knows how to add correctly. Although the odds are slim that you'll encounter any problems using the older Pentium chip, you are entitled to the corrected chip if you want it. You can test a Pentium chip by entering the following equation in the Windows calculator:

4,195,835-((4,195,835/3,145,727)*3,145,727)

The correct answer is 0; if you get 256, you have a defective chip. Contact your system vendor or call Intel at 800-628-8686 for details on how to get a replacement. Intel will refer you to a dealer that will perform the upgrade at no cost, or will send you a replacement chip and walk you through the upgrade over the phone.

You can also get software utilities, such as PENTST.ZIP in ZiffNet's Executives Online forum on Prodigy and CompuServe (Go **ZNT:EXEC** or Jump **ZIFF**), that will turn off the Pentium's math coprocessor to get around the errors, but you'll be cheating yourself out of full Pentium performance.

Online Tip: When Aunt Margaret dials you up and clicks your Call Waiting while you're online, does your modem lose its connection? In most areas, you can temporarily override Call Waiting by dialing *70 before the modem number for your online service. If you use a rotary phone, dial 1170 before the modem number. When you hang up from your connection, Call Waiting is immediately reinstated.

Online Tip: A properly set up and configured modem that makes a normal connection at the specified speed and then drops to a slower speed may be fighting noisy phone lines. Any number of things can cause line noise. Devices that share the same phone line could be causing the trouble — phone/answering machine/fax combinations are likely culprits. Disconnect these other devices when they're not in use; if the problem vanishes, you've found the trouble. The best workaround is to install a second phone line. Also check your phone cord and phone jack connections. A replacement cord costs $6 to $10 at any consumer electronics store.

Can a personal computer grow up with your family?

With technology changing so quickly, it's only natural to wonder whether the computer you buy today will be obsolete tomorrow. That's why Apple designed the Macintosh® Performa® for tomorrow as well as today.

You grow with your Performa.

Performa comes with all the software you're ever likely to need—enough to write letters, do a household budget, bring work home from the office and more.

Performa is also easy to learn and use, right out of the box. So this computer can help your kids from the first day of kindergarten through the last day of college.

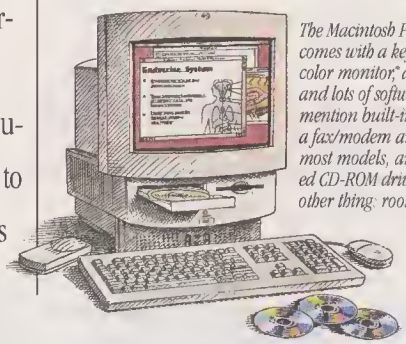
If your interests grow or change, thousands of different programs are available to meet your needs. Plus, since more homes and schools use Apple® computers than any other brand, you're assured access to the newest, most exciting software.

Performa grows with you.

Apple's unique plug-and-play philosophy makes it easy to add new capabilities to your Performa—today, tomorrow, even years down the road.

Plug-and-play means exactly what it sounds like. If you want to add a printer, just plug it in. If you need more storage space, just plug in a hard drive. And so on.

There are no cards to fool with. No complex CONFIG.SYS or AUTOEXEC.BAT files to modify. No other computer makes it this simple to add what you need.



The Macintosh Performa comes with a keyboard, a color monitor, a mouse and lots of software, not to mention built-in speakers, a fax/modem and, with most models, an integrated CD-ROM drive. And one other thing: room to grow.*

Such as, extra memory. And now the Performa is available with the PowerPC™ chip (making it even harder to outgrow).

And every Performa also comes with a full year of in-home service and a lifetime of toll-free telephone support (making your future virtually worry-free).

So year after year, your family can enjoy the kind of power you buy a computer for in the first place. The power to be your best.®

Performa®

The Family Macintosh

**Not all Performa models come with a monitor, which may have to be purchased separately. You'll find the Macintosh Performa in consumer outlets, discount stores and places like that. For a retailer near you, give us a call at 800-538-9696, ext. 215. © 1995 Apple Computer, Inc. All rights reserved. Apple, the Apple logo, Macintosh, Performa and "The power to be your best" are registered trademarks of Apple Computer, Inc. PowerPC is a trademark of International Business Machines Corporation, used under license therefrom. This ad was created entirely using Apple Macintosh computers. All Apple products are designed to be accessible to individuals with disability. To learn more (U.S. only), call 800-776-2333 or TDD 800-833-6223.*

HELP!

Helpful References

Sometimes you have to call for outside assistance to troubleshoot particularly thorny problems. Here's a quick guide to sources of expert advice that are bound to help.

SOONER OR LATER, anyone who uses a PC feels the urge to hurl it through a window. Computer problems inevitably arise at the worst times imaginable: the night before your son's term paper is due or when you're 300 miles from anyone who can help. Everyone experiences computer disasters, even PC professionals. And the best comfort you'll find in moments of panic is a good repair reference. What follows are some gems for Windows PCs. Keep one next to a bottle of aspirin.

The Complete PC Upgrade and Maintenance Guide

By Mark Minasi, Sybex, $29.95

Have you ever replaced a dead floppy disk drive or installed a sound card? Does the idea make you break into a sweat? Minasi's book provides an excellent way to save yourself hundreds of dollars and endless hassle in installation and repairs. Packed with illustrations that show step-by-step procedures, it occasionally climbs into technical clouds where only advanced technicians lurk (e.g., discussions about how to solder a chip onto a circuit board or about hard drive absolute sectors versus DOS sectors). But even beginners can get a lot from this book.

Minasi offers practical advice for when you need an upgrade (and when you don't), as well as guidance for choosing the upgrade that will deliver the best performance. The book is also peppered with strategies and tips for keeping your system running trouble-free.

This Old PC

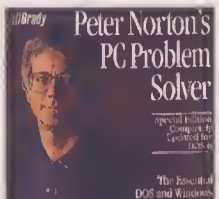
By Dale Lewallen, Ziff-Davis Press, $29.95 (disk included)

It's depressing how quickly computers become obsolete, but Lewallen explains how you can breathe a little life into an old machine. While it's not exactly a repair book, *This Old PC* provides an excellent troubleshooting guide for ferreting out and replacing dead components. Richly illustrated with easy-to-follow procedures, this book is a great way to extend your investment.

Peter Norton's PC Problem Solver

By Peter Norton and Robert Jourdain, Brady Books, $29.95

By the celebrity nerd himself, this reference is an ideal way for anyone to graduate from beginner user to intermediate status. It provides the best plain-English explanation of Windows and DOS you'll find. Reading this book is an education in itself, with comprehensive, step-by-step advice for taming and running DOS and Windows.



Troubleshooting Your PC, 2nd Edition

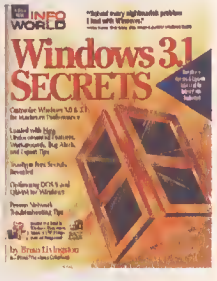
By Jim Aspinwall, Rory Burke, and Mike Todd, MIS Press, $32.95 (disk included)

Despite an ungainly organization that sometimes uses step-by-step procedures and at other times uses tables and charts, this comprehensive (755 pages) book teems with helpful information, tips, and general explanations about how PCs work. The authors cover a wide variety of topics — everything from memory error messages to installing CD-ROM drives. A problem index lists 171 problems (in no particular order) and where to turn for help.

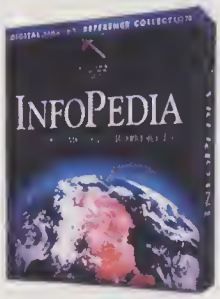
Windows 3.1 Secrets

By Brian Livingston, IDG Press, $39.95 (three disks included)

Windows is high on the list of usual suspects for any PC problem, and Livingston's book is particularly adept at solving conflicts that arise when Windows won't behave with specific types of hardware. The book includes strategies for improving Windows performance, as well as shrewd advice for avoiding trouble.



NOW AVAILABLE FOR WINDOWS™ AND MACINTOSH®



If anything merits a word home to the folks, it's that at long last, there's an offer simply too good to be true—and it is true. Presenting INFOPEDIA, the most comprehensive multimedia reference program around.

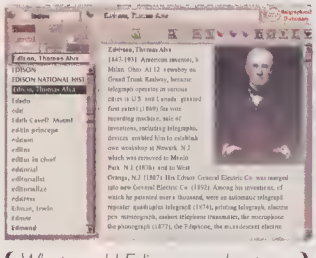
It combines the entire 29-volume Funk and Wagnalls New Encyclopedia with Merriam-Webster's Dictionary, Webster's New Biographical Dictionary, The World Almanac & Book of Facts, Merriam-Webster's Dictionary of Quotations, Roget's 21st Century Thesaurus, Merriam-Webster's Dictionary

{ Try fitting all of these into a space less than a millimeter thick. We did. }

INFOPEDIA may be the most complete CD-ROM reference tool in existence, but you wouldn't want to write home about it. At this price, you can afford to call.

of English Usage and The Hammond World Atlas. In all, more than 200,000 entries. Plus countless animated sequences, video clips, audio files, maps and color photographs.

{ Watch historical events as if you were there but without all those cameras in your way. }



{ What would Edison say about our sound recordings and narrations? Perhaps he'd be speechless. }

INFOPEDIA also has an exclusive single-screen interface, making it easy to jump from one reference work to another. All this, and still INFOPEDIA is priced below the other leading reference programs. So visit your local retailer. Or for just $4.95 shipping and handling, we'll send you a free demo disk. Simply call us at **(800) 472-8777 ext. 110**. That call is free. Any others you'll want to make are beyond our control.

FUTURE VISION MULTIMEDIA

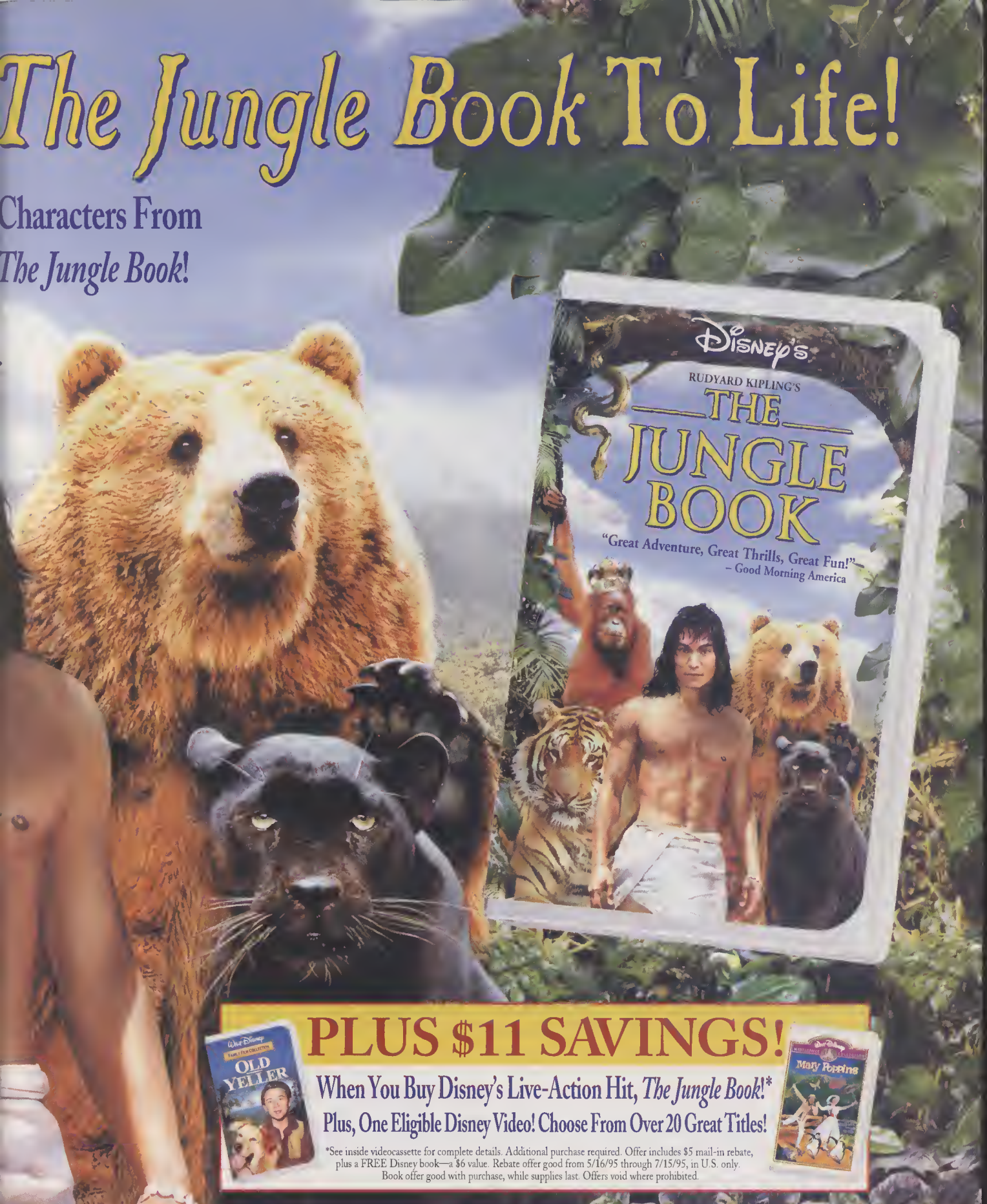
BEST BUY · COMPUSA THE COMPUTER SUPERSTORE · MEDIA PLAY MUSIC · BOOKS · MOVIES · SOFTWARE · EGGHEAD SOFTWARE North America's Software Eggsperts.

©1995 Future Vision Multimedia Inc., a subsidiary of Future Vision Holding, Inc. All Rights Reserved.

Only Disney Could Bring
Starring Your Favorite
Disney's Classic,
Own It
On Video
May 19!
WALT DISNEY PICTURES presents "RUDYARD KIPLING'S THE JUNGLE BOOK" A SHARAD PATEL Production
EDWARD S. FELDMAN
STEPHEN SUMMERS
JASON SCOTT
CARY ELW
JUAN RUIZ-ANCHIA, A.S.C.
SHARAD PATEL MARK DAMON LAWRENCE MORTORFF
RUDYARD KIPLING
RONALD VAN D
PG
SOUNDTRACK ALBUM AVAILABLE ON
CDs AND CASSETTE

The Jungle Book To Life!

Characters From *The Jungle Book!*



PLUS $11 SAVINGS!

When You Buy Disney's Live-Action Hit, *The Jungle Book*!*

Plus, One Eligible Disney Video! Choose From Over 20 Great Titles!

*See inside videocassette for complete details. Additional purchase required. Offer includes $5 mail-in rebate, plus a FREE Disney book—a $6 value. Rebate offer good from 5/16/95 through 7/15/95, in U.S. only. Book offer good with purchase, while supplies last. Offers void where prohibited.

ENA HEADEY with SAM NEILL and JOHN CLEESE Co-Producer MICHAEL J. KAGAN Music by BASIL POLEDOURIS Costumes Designed by JOHN MOLLO Film Editor BOB DUCSAY Production Designer ALAN CAMERON
MARK O. GELOMAN Screenplay by STEPHEN SOMMERS and RONALD YANOVER & MARK O. GELOMAN Produced by EDWARD S. FELOMAN RAJU PATEL Directed by STEPHEN SOMMERS

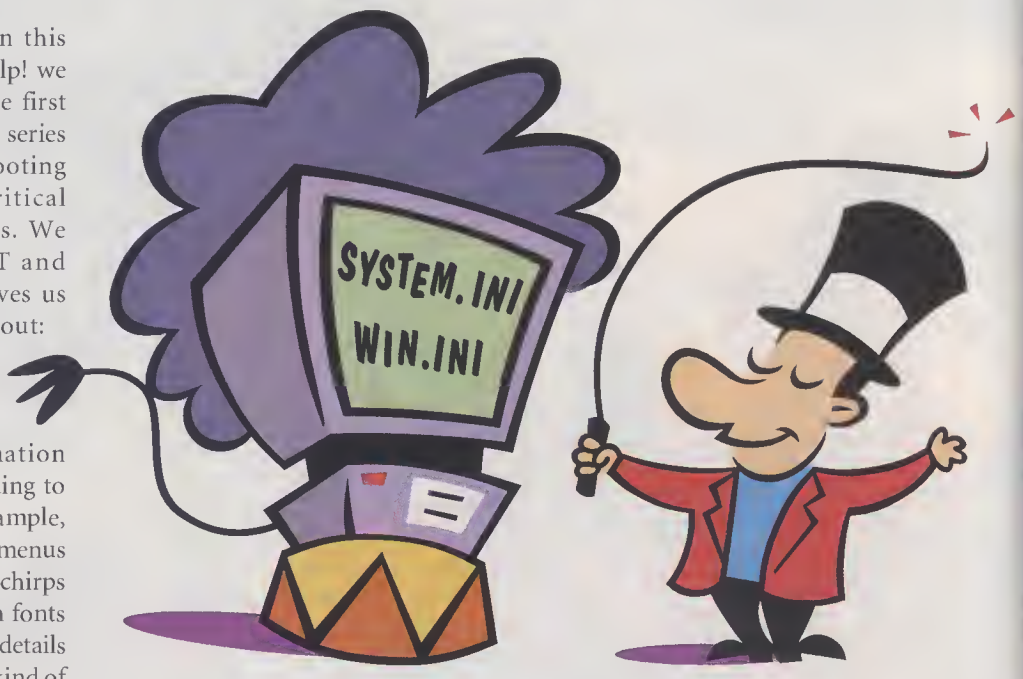
Walt Disney Home Video [illegible] by Buena Vista Home Video, Burbank, CA 91521. © Buena Vista Pictures Distribution, Inc.

Walt Disney HOME VIDEO

HELP!

Care and Feeding

Maintaining critical Windows system files: WIN.INI and SYSTEM.INI



LAST MONTH in this section of Help! we kicked off the first of a four-part series on troubleshooting and editing critical DOS and Windows system files. We started with AUTOEXEC.BAT and CONFIG.SYS, but Windows gives us two additional files to worry about: WIN.INI and SYSTEM.INI.

Guided Tour

WIN.INI contains the information Windows needs to behave according to your personal preferences. For example, it tells Windows which colors your menus should be, the types of beeps and chirps your system will make, and which fonts you can use. SYSTEM.INI handles details about your hardware setup — the kind of monitor you're using, the type of mouse that's attached, the brand and make of printer connected to your system, and so on. Windows creates both WIN.INI and SYSTEM.INI automatically when you install it. The installation of new applications on your PC often modifies one or both of these files.

Like AUTOEXEC.BAT and CONFIG.SYS, both WIN.INI and SYSTEM.INI are plain-text files, which means that you can make changes to them using a word processor. Unlike DOS's concise configuration files, however, INI files are as complex as Windows itself. They are also long; typical INI files run several pages when printed out. Fortunately, you're less likely to have to edit them.

Both INI files are divided into several sections, each headed by a word or phrase in brackets. The first lines of WIN.INI, for example, might look like this:

[desktop]
KeyboardSpeed=25

Most of the lines in both SYSTEM.INI and WIN.INI are automatically altered when you change Windows settings. Go into Windows' Control Panel and change the desktop colors or select another printer, for example, and Windows writes the changes directly to the appropriate INI file.

It's not a good idea to edit INI files by hand. But sometimes conflicts and problems in Windows force you to do so — especially when you remove a Windows program that you no longer need. Windows applications tend to leave their fingerprints all over your INI files. Cleaning them up can be an exasperating enterprise, and few programs offer uninstall routines that do the cleaning for you. If, for example, you encounter ghost error messages that seem to refer to a program that you have deleted from your hard drive, you will typically have to manually edit the traces of the program out of your INI files.

Make Copies First

As with editing CONFIG.SYS and AUTOEXEC.BAT, editing Windows' INI files isn't too tricky, but you should always make backup copies of these files before changing them. Using File Manager or DOS's copy command, copy these files to a floppy disk or backup drive for safekeeping. If Windows refuses to load after you make changes to your INI files, you can copy the original configuration files back to your hard drive. With backups on hand, you can quickly undo any changes you made if you need to.

Editing INI Files

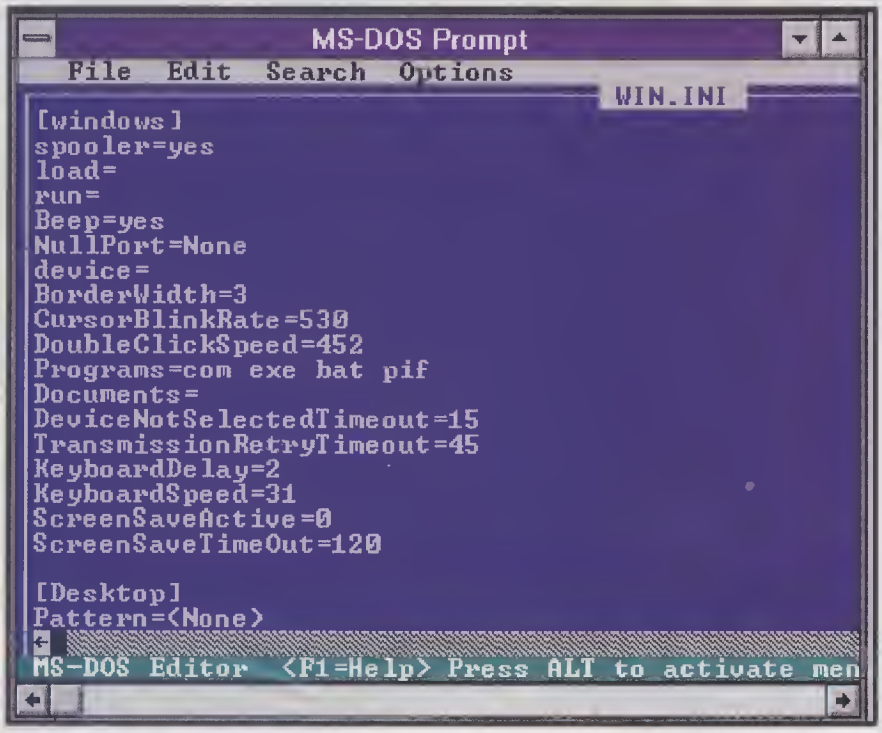
There's a fast and easy way to edit INI files. Windows 3.1 comes with a program called the System Configuration Editor, or SysEdit. If you don't see an icon for this program in the Main or Accessories group, you can run it from File Manager.

To do this, click on File Manager, then on the C drive, and finally on the Windows directory. On the right side of the screen you should see a list of the files that reside in the Windows directory. On the left side, look for the SYSTEM subdi-

wouldn't it be nice to buy a COMPUTER from someone WHO'S down-to-earth?

If it seems like you need a degree in physics to find the right *computer,* then maybe it's time you shopped Sears Brand Central. Where you'll meet patient, *knowledgeable* salespeople who can help you figure out exactly what you want. And explain it all in plain English, without the *technical* talk. Whether you're a chess fiend, gourmet cook or astronaut in training, you'll find row after row of software for the whole *family.* In the latest formats, from multimedia CD-ROM to Pentium. Plus top name systems like Apple, Compaq and Packard Bell. Computer shopping can be complicated. So shoot for *Brand Central* and keep it simple.

SEARS



Inside WIN.INI Windows uses WIN.INI to learn about your system preferences.

rectory of Windows. Click on it. A file called SYSEDIT.EXE should appear on the right side. The little icon next to it should have a tiny colored bar across the top.

As soon as you start SysEdit, it pops up a screen with all four of your system configuration files in it: WIN.INI, SYSTEM.INI, CONFIG.SYS, and AUTOEXEC.BAT. To select the file you want to edit or view, click on the title bar (the colored bar on top) of that file to bring it to the front of the stack.

To remove traces of a program that you've recently deleted, search WIN.INI to find the section that refers to that program. First, click on the menu item called Search (or hit the Alt and F keys, then F again). Now enter the name of the program you just deleted, and press Enter. This should bring you to the first mention of the program. If you get a report that no matches were found, you may have to improvise a little on the search term: if the program name is CorelDraw, for example, you can try searching on just Corel.

When a software program makes its mark on WIN.INI, it puts most or all of its changes in the same section, usually under the name of the program (which appears in brackets). If you were removing a program called LogIt from your system, for example, you would look for the section of text that appeared under [LogIt].

To remove all traces of the program from WIN.INI, delete all the information under the brackets, stopping when you reach the next set of brackets. Now save the changes (Alt-F, S), and exit SysEdit. For the changes to take effect, exit and restart Windows.

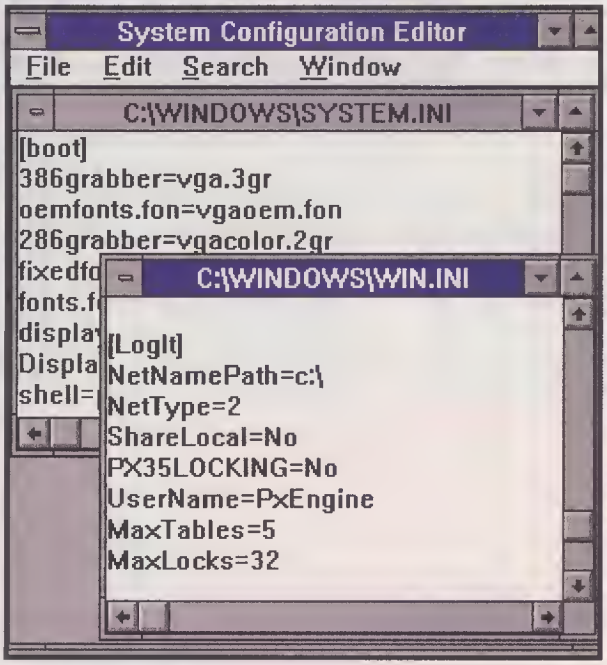
Emergency Measures

If, after restarting Windows, you still get an error message from the program, there is a chance that the program made changes to other parts of the INI files as well. Rerun SysEdit and search both WIN.INI and SYSTEM.INI for traces of the program. Repeat the above process for the entire files. If you find any more references, delete them.

If you're uncertain about whether a particular section of an INI file belongs to the program you're trying to purge from your system, there is a workaround. Instead of deleting the line or lines outright, type a semicolon (with no space between the semicolon and the text) at the start of the suspicious line or lines. Like the REM statement used in AUTOEXEC.BAT and CONFIG.SYS editing, the semicolon tells Windows to ignore this line at start-up. Now restart Windows. If the problem disappears, go back and delete the lines in question. If the problem persists, reinstate those lines (i.e., delete the semicolons) and try another suspicious section.

If you encounter any problems with your changes, copy your backup version of the INI files over the ones you've just changed. If you use SysEdit to edit your INI files, it also creates backup copies of your original configuration files. Copies of WIN.INI and SYSTEM.INI are called WIN.SYD and SYSTEM.SYD and reside in the Windows directory.

Next month: Bloated AUTOEXEC.BAT and CONFIG.SYS files can slow your system's performance. In July, learn how to prune unneeded lines from these files for a faster PC. FPC



Using SysEdit To remove all traces of an application from the WIN.INI file, look for references to that application's name (in this case, LogIt).

It's broccoli for the mind.

Preferred By Teachers 2 to 1

There's no better way to supplement your child's education than with a program from our award-winning library. In fact, an independent study confirms that teachers prefer the learning qualities of Sanctuary Woods® programs over competitive software. Just as importantly, our software comes with a healthy helping of animation, graphics, sound effects and music. So call 1-800-943-3664 for the name of your nearest Santuary Woods retailer. And make learning a whole lot easier to swallow.

SANCTUARY WOODS

© 1995 Sanctuary Woods Multimedia. All rights reserved *Bit-Bot's Math Voyage, Show & Tell Words* and the Sanctuary Woods tree logo are trademarks and *Sanctuary Woods* is a registered trademark of Sanctuary Woods Multimedia

A COUPLE OF THINGS TO CONSIDER WHEN YOU BUY THAT NEW COMPUTER.

When you chaase a camputer system far your home, dan't overlaak the mast abviaus campanent: The monitor. Computer componies will frequently include a law-quality manitar. Thot might make o complete system easier ta buy, but a lat harder to live with.

Nokia is Finland's largest multinational company, and the leading brand af manitars in Eurape.

If yau chase yaur manitar os corefully os the rest af yaur system, it would prabably laok like the Nokio 17" 447L multimedia manitor. With a .28 mm dat pitch flot square tube ond maximum resolution af 1024 x 768 at a refresh rote af 75 Hz, the 447L is the caliber af disploy usuolly enjayed by grophics profassionols. In fact, Nokios have been named o *Hame Office Computing Magazine* Best Buy.

colorific
KODAK

*When used with an appropriate graphics card. 17" CRT yields a diagonal picture size of 15.75". Manufactured and designed in Finland in an ISO 9001 approved environment.
©1995, Nokia Display Products, Inc. Europalette, Valuegraph, and FullScreen are trademarks of Nokia Display Products, Inc. E-MAIL: bynokia@aol.com.

The 447L features front panel solid-state screen adjustments and sterea pawered speakers under the bezel—ideal for the multimedia saftware that is naw particularly papular with families. Which brings us ta the mast important consideration.

Children are spending hours with their young eyes just inches away from monitors. Here the 447L shaws its real value. Its emissions cantral has earned Sweden's MPRII certificatian—one af the strictest standards in the world. Its erganamics reduce eyestrain and fatigue, and demanstrate real user-sensitivity.*

The overage viewing distance of o computer monitor is eighteen inches. Remember whot you learned obout sitting close ta the TV?

The enviranmental values of Finland (where the 447L is made) are evident everywhere: From no CFCs or farmaldahyde in the materials (which eliminates harmful gases) right down ta using recycled paper in the packaging. Not only is the 447L friendlier ta users, it can even get along with the decor in yaur hame—thanks to the EuraPalette™ chaice of colors. And with its suggested retail price af $699**, it won't even disturb the family budget.

Nokio mokes speakers for Germon luxury cars, so odding them to the 447L wos eosy.

Sa when yau buy your camputer system, laak at the monitor with the eyes af a child. And the 447L will be your clear chaice. Call 1.800.BY NOKIA far the location of the dealer nearest you.

BEST Home Office Computing BUY

MAXIMUM REFRESH RATE FOR EACH RESOLUTION

RESOLUTION	640x480	800x600	1024x768
447L—17"	80Hz	80Hz	75Hz

NOKIA
MONITORS

**Dealer price may vary. Prices and specifications subject ta change withaut natice. Actual calars may vary. The Energy Star emblem daes nat represent EPA endorsement at any praduct ar service. All other trademarks are the sale property of their respective campanies.

Energy Star
EPA POLLUTION PREVENTER

We Couldn't Have Said It Better Ourselves.

Best Multimedia Title

Seal of Approval

Best Home Learning Program

Seal of Approval

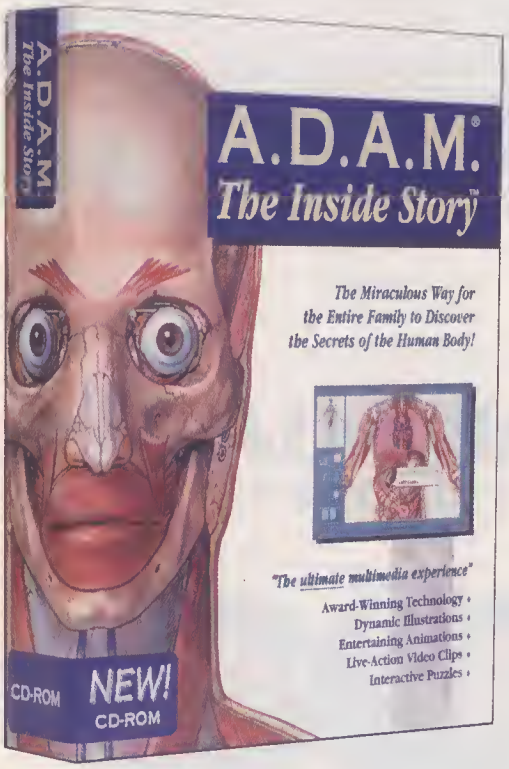
"★★★★★"
Macworld
March '95

"○○○○○"
PC Computing
January '95

"🍎🍎🍎🍎½"
MacHome Journal
October'94

"★★★★★"
ComputerLife
November '94

"★★★★½"
Family PC
Nov./Dec. '94



"Choosing a single product from the diverse field of multimedia titles is a tough proposition. But A.D.A.M. The Inside Story™ demonstrates all the right qualities: compelling use of multimedia, a wealth of information, and an innovative approach." *(Electronic Entertainment)* "A.D.A.M. The Inside Story... teaches about basic anatomy and physiology with a tantalizing mix of sound, graphics, and animation. It's a multimedia CD-ROM application that really delivers." *(MacWorld)* It is perhaps the most powerful of the anatomy programs, able to show the many layers of the human body and all the major organs, all the while doing so with a sense of humor. *(FamilyPC)* "The real fun begins with the tours provided on the CD-ROM. The Family Scrapbook looks at the accident-prone body and shows what happens in a number of situations (finger cut, sunburn, bee sting, etc.)" *(MacHome Journal)* "Unlike many multi-media applications, A.D.A.M. left me wanting to see more. If you are the least bit interested in learning more about how the human body works, buy this program." *(Electronic Entertainment)*

A.D.A.M.®
SOFTWARE, INC.

Bringing Multimedia To Life

$39.95*

Order This Award-Winning Software Now.

1-800-408-ADAM

Dept. #522

*$39.95 plus shipping and handling. Offer subject to change.

©1995 A.D.A.M. Software, Inc. "A.D.A.M." and "The Inside Story" are trademarks of A.D.A.M. Software, Inc. All rights reserved

FUN

COOL PROJECTS AND GAMES FOR YOUR FAMILY

POGfest!

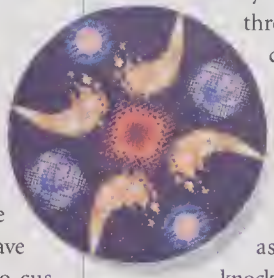
Help your child create collectible caps with the family PC

KIDS LOVE TO PLAY with POGs, but they can have even more fun making their own on the family computer. Taking advantage of the tools that come with paint and drawing programs such as Kid Pix 2 (Mac or Windows disk, $40 street; Brøderbund, 800-521-6263 or 415-382-4400), there's no limit to the cool, collectible caps you and your child can turn out.

To start, launch any drawing program and use the circle tool to create a POG cap (about 1 11/16 inches in diameter). Then copy or cut and paste to make more circles. Fill the screen, but don't make the circles too close or you won't be able to cut them out later. Have your child add stamps to customize the caps.

Print the circles on a full sheet of label paper. If you don't have a color printer, have your kids color your designs with markers. Affix the sheet of paper to a piece of cardboard and cut out the circles. If label paper is not available, you can also use regular paper and glue it to the cardboard. When you're through, your young POG maker will be well fortified for slapping or trading his or her POGs.

Flip Out The object of the game is to knock over opponents' POGs.



Copycat Copy one circle to make a series of POGs.

Rules

The object of the POG game is to win as many caps as you can from opposing players. Here's how to play.

- Stack the caps, decorated side up, into columns — one column for each person, with the same number of caps in each column.
- Players take turns throwing a POG called a slammer at a stack of POGs, trying to flip as many caps in the stack as possible (by knocking them over).
- After a player throws at a stack, all caps that land blank-side-up are that player's winnings; all flipped caps remaining art-side-up are restacked into one column.
- Play continues until the very last cap is won, at which point you can start over again.

For more POG information, call the World POG Federation in Costa Mesa, California, at 714-548-2600, or look on CompuServe in Library 13 of the Trading Card Forum.

POGware

If you and your child are looking for some crafty software made especially for POGs, buttons, and stickers, try StickerShop Plus (Windows or Mac disks, $39.95; Mindscape, 800-866-5967 or 415-883-3000). This program comes with cardboard disks (as well as adhesive paper and button pins) and lets you print out sheets of eight different sizes of stickers framed in squares, rectangles, or circles. You can use premade designs and logos, your own artwork, or a combination of both.

For POGs, use the StickerShop Plus clip art to make your own set of personalized POGs. All you have to do is select and size your choices on the template. Add your own words and graphics, and, using the appropriate type of sticker paper, print out your creations. Your kids will flip over these styling POGs.

Mastering Orion

Rule the galaxy before dinner's on the table with these game tips

THERE'S NO BIGGER or better place for creating empires, winning friends, and pursuing enemies than outer space, and that's what Master of Orion by MicroProse (DOS disk or CD-ROM, $47.95; 800-879-7529 or 410-771-0440; ages 14 and up) is all about. And even though it's a complex strategy game, don't think you and your children have to give up a weekend to complete a game. With planning and some luck, even a space rookie can rule the galaxy in the time it takes to watch a movie. Here's how.

Begin a new game. Select the easy level, small galaxy, and two-opponent options. Then pick your race — good choices are the Meklars, Humans, and Psilons — followed by your banner color, name, and home world name. Now it's strategy time.

Carving out galactic turf is your first priority. Begin with a single planet, a colony ship, and two scouts. Use your scouts to explore as many nearby stars as possible, and send the colony ship to the biggest habitable planet within range. Get three or four colonies up and running as quickly as possible.

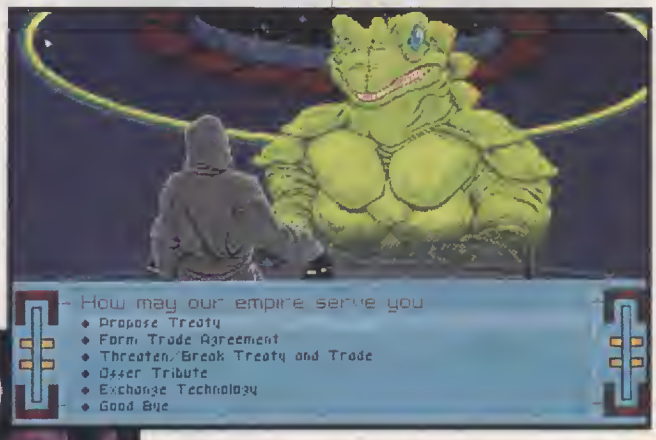
In the early stages of the game, ignore building defenses and new spaceships (except for colony ships) unless an alien neighbor pesters you. Build as many factories as you can, as soon as possible — a blockbuster economy is crucial to victory. Then, as production grows, gradually increase technology spending. When you have reached maximum factory levels, think three words: *technology, technology, technology.*

When should you build an awesome space fleet? It depends on your neighbors. Check out the personalities of alien leaders from the Races screen using the Report button. Be chummy with your neighbors whenever possible until you're prepared to challenge them. Each time a new race pops onto the screen to introduce itself, set up a small trade agreement — it's money in your pocket, and it leads to improved relations.

Trade also may sway a vote for you at the all-important High Council. When most of the galaxy has been colonized, all races meet in the council to vote for a supreme ruler. If you're voted in, you win. The other way to win, of course, is to exterminate the other races.

Each race has a built-in advantage, so make sure to exploit yours. If you are the Humans, diplomacy is your forte: form lots of trade agreements and make friends with everybody. If you're the Meklars, who are factory-operating wizards, worry less about expansion and more about maximizing each planet. If you are the research-oriented Psilons, get way ahead in technology by investing in it early.

Follow these tips and even if you don't win, you'll leave a good account of yourself in an unfriendly galaxy. (For those who graduate to the more advanced levels of the game, a far more definitive guide is recommended: *The Official Strategy Guide to Master of Orion*, published by Prima and priced at $19.95.) How many other people can say they've mastered the universe before dinnertime?



Supreme Schmoozer Charm the neighbors, and you stand a better chance of ruling the planet — which is the name of the game in Master of Orion.

Play Ball!

These handy hints make HardBall 4 a home run

No sport simulation is as good as the real thing, but as technology improves, so does the quality of the simulated games. One of the best is HardBall 4 (DOS disks or CD-ROM, $59.95; Accolade, 800-245-7744 or 408-985-1700; ages 14 and up), a baseball simulation that features all the pro players from the National and American Leagues, playing true to form. With opponents of such caliber, the game can be a real challenge. But with *FamilyPC* on your side, you can enjoy knocking some 'taters off Roger Clemens or whiffing Frank "Big Hurt" Thomas. Here's how.

Batter Up! HardBall 4's great graphics will have you swinging with the pros in no time.

Home-Run Derby

This is a module built directly into the game. You pick the park, the pitcher, and the batter — or put yourself at the plate. You get twenty pitches to swing at. When you hit the ball, the game gives you a score (depending on where the ball ends up). It keeps a running total as you bat. This is a perfect competition for a father and son.

Exhibition Play

While the game offers an entire league schedule, at first it's more fun to pit your favorite teams against one another. HardBall 4 has a great interface that lets you swap players, change their stats, and even dictate the type of weather a game is played in. You can choose to simply manage your team, or you can play every position. (The best mode is Auto-fielding. This makes all fielders go after and field balls that are hit toward them. Then you decide where the fielders should throw.) Add your own name to the lineup and give yourself some hefty stats. Then you can sit back, take your hacks, and watch the fireworks.

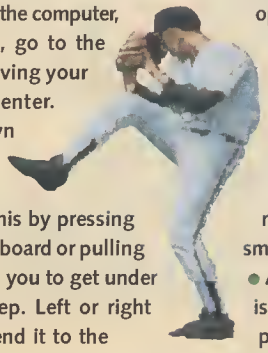
All-Star Game

Another great module in the game is a preset All-Star Game. This features all the best players in the leagues, playing in the park of your choice. As with the exhibition and home-run modules, you can customize everything. Here again is a perfect way to get your own and your child's names into the lineup: set it up so that you're pitching for the American League and your son is batting cleanup for the Nationals — right behind Barry Bonds.

The computer players are a challenge; they will frustrate you with an amazing number of two-strike hits and home runs. But remember, you control the game. Throw at batters, if you like. Pull your pitcher if you think he has a bad attitude. At the very least, this game is good therapy for those suffering from the baseball strike.

Coach's Corner

Here are some simple ways to achieve instant MVP status when playing HardBall 4.



- If you're playing solo against the computer, when setting up your games, go to the Options menu and click on having your opponent always pitch to center. Everything will be right down the middle of the plate.
- When hitting, always swing a bit under the ball. (You do this by pressing the down arrow key on the keyboard or pulling back on the joystick.) It allows you to get under the ball a bit and send it deep. Left or right movements pull the ball or send it to the opposite field; swinging high usually results in a line drive or grounder.
- When you are pitching, mix up your pitches and try to hit the various corners of the plate. Also, keep your pitches down as a rule, and don't repeat a type of pitch more than twice in succession or repeat a pattern of pitches. These players are smart and dangerous.
- As with all games, save, and save often. This is the only time instant replay truly means replay. It also means that you should never lose.

Aptiva™. The new multimedia family computer from IBM.

The IBM Aptiva family of home computers has the power, spacious hard drives (up to 727MB), and multimedia capabilities to be all things to all members of your family.

With Aptiva's double-speed CD-ROM drive and resources like Compton's Interactive Encyclopedia™, your kids can stay ahead of the class. Using Aptiva's data/fax modem, they can even make quick excursions on the Internet to the databanks of America's foremost universities. Meanwhile, manage your finances painlessly with Quicken SE ® (included with every Aptiva). Or make short work of files you bring home from the office.

All work and no play doesn't suit you or the Aptiva. Explore the latest 3-D game worlds with Aptiva. Or play music CDs while you work in another program.

Better yet, create your own music in Aptiva's recording studio.

It's so easy to use. With IBM's exclusive Rapid Resume™ technology, you won't have to wait for your PC to "boot up." When you turn it on, your Aptiva quickly restarts with your Windows™ files and applications open exactly the way you left them. And because the Aptiva 535 system comes with voice recognition capability, you can talk to your PC. Use your voice instead of the keyboard or mouse to navigate through Windows and other Windows-based programs.

We're always here, whenever you need us. When you buy your new Aptiva from IBM PC Direct™, your computer is supported by IBM HelpWare® service and support, 24 hours a day, 7 days a week (excluding some holidays). And that means a 30-day, no-hassle money-back guarantee[1] and a 3-year limited warranty (1 year for monitor and pre-installed software) with IBM Express Maintenance™ anywhere in the U.S.[2]

Call us today. Your Aptiva awaits. All you have to do is call IBM PC Direct. We'll help you decide which Aptiva is perfect for you and your family.

The Aptiva Multimedia PC

The 535 system

- Intel® i4B6™DX2/66MHz microprocessor
- BMB RAM (up to 12BMB)
- 540MB* IDE hard drive
- BKB internal cache
- 3.5" 1.44MB floppy drive
- 101-key IBM Keyboard and IBM Mouse
- Internal data/fax modem
- Two serial, one parallel port
- Four slots, four bays
- Voice recognition capability
- Exclusive Rapid Resume energy-saving, Energy Star-compliant technology with "Wake Up On Ring" feature
- Upgradable to Pentium™ technology

For multimedia

- Double-speed CD-RDM drive
- Aria® 16 Wavetable audio card
- Two 30-watt digital speakers
- MIDI/game port

For better graphics performance

- IBM 0.2B 14" SVGA color monitor (13" diagonal viewing area)
- Local bus video
- 1MB video RAM

The preloaded software

- Compton's Interactive Encyclopedia, The Discoverers, Undersea Adventure™, MCS MusicRack™, Music Mentor™, Recording Session™, IBM Photo Display, IBM Aptiva PC Multimedia Exploration, Monologue for Windows™, Sound Blaster Utilities™
- The Disney® Preview of 11 Disney software titles, including Animation Studio and Aladdin Print Kit (worth $299 for only $79 when you call for the unlocking code)
- IBM PC DOS 6.3, Microsoft® Windows 3.11, PFS: WindowWorks™, Quicken Special Edition, Reuters® Money™ Network, FaxWorks™, The PRODIGY® Service with IBM Club™[3], Journalist™, America Online®[4], IBM Connection™, IBM Online Housecall (online diagnostics)

For support

- Toll-free voice support
- 3-year limited warranty (1 year for monitor/software) with IBM Express Maintenance[1]
- 30-day money-back guarantee from IBM PC Direct[1]

IBM®

IBM PC Direct

To order, call today!

1 800 426·7255

Enter source code 4973.

IBM PC Direct prices/offerings are subject to change, withdrawal or availability. Remarketer prices may vary. Shipping and handling charges are extra. *MB, when used to describe hard drive storage, stands for 1,000,000 bytes; total user-accessible capacity may vary slightly based on operating system environment. 1. Please call 1 800 772-2227 for details regarding IBM's money-back guarantee and limited warranty. Copies available upon request. 2. At no additional charge during warranty period. Optional customer carry-in repair available first year. Please ask your Sales Representative for details. 3. 30 days of The PRODIGY Service included at no additional charge. Telephone charges may apply in some locations. 4. 10 hours of America Online are included at no extra charge within 30 days of registration.Members in Alaska, Hawaii and Puerto Rico pay a 20-cents-per-minute surcharge at all times. Assembled in the U.S. of U.S. and non-U.S. components; monitor manufactured in Korea. Software programs listed are licensed to customers under non-IBM software vendor's terms and conditions provided with the package. IBM makes no representations or warranties regarding non-IBM software. Pentium upgrades may require additional options. IBM and HelpWare are registered trademarks, and Aptiva, Express Maintenance, and Rapid Resume are trademarks of International Business Machines Corporation. Windows is a trademark of Microsoft Corporation. All other products and company names may be trademarks and/or registered trademarks of their respective owners. PC Direct is a trademark of Ziff Communications Company and is used by IBM under license. © 1995 International Business Machines Corporation.

You'll feel right at home with it.

IBM PC Direct

The Aptiva 535 system
(including 14" monitor)
$1999

Aptiva 535 with 15" monitor shown available for $2,198
(Actual diagonal viewing area 13.7")

Call us, we're open 8am-10pm Monday-Friday,
9am-5pm Saturday (Eastern Standard Time).

Radio Days

Rock around the PC with this great music-trivia game

RADIO ACTIVE: The Music Trivia Game Show (Windows or Mac CD-ROM, $24.95; Sanctuary Woods Multimedia, 415-286-6100) is a contest that challenges even the sharpest music aficionado. And because its music spans several generations, it's the perfect game for everyone from your young teens to your in-laws.

Game Play

One to four players take turns clicking on the handle to spin the game wheel, which randomly stops on either a music-trivia question from a five-year period, a song puzzle, or a video riddle. The player has about 20 seconds to choose the correct answer or put the puzzle together correctly, earning points for accuracy and speed.

Trivia questions span pop, rock, Motown, and alternative music and are rated as easy, medium, or hard. Do you know, for instance, who had back-to-back Top 5 hits in the mid-1960s? If you answer "Frank Sinatra," your turn continues. Next, you listen to a song without the vocals and identify the title. If you answer incorrectly, the next player gets a chance to answer. (Other players should not blurt out the answer when it's not their turn, since everyone may have a chance at each question.)

Since you get to choose the difficulty of the questions after the wheel stops, it's wise to go for the gusto only if you land on a question for a time period you know well. And because you're allowed to make one mistake and are scored on time and precision, you should take your first guess immediately; if instinct serves you well, you'll earn lots of points by answering quickly, and if you guess incorrectly, you haven't wasted too much time before your next try. Once you read the question, if you're certain of the answer, focus on locating it rather than reading all the other answers.

Conversely, if you're stumped, scan the answers carefully — the right one may jump out at you.

Every third round is an Extended Play round in which you get a three-part question that can net big points to put you back in the game or nail down a lead. For instance, you may be asked to pick from a list of sixteen artists the three who recorded songs about the moon.

If you land on a video riddle, you have to identify the artist associated with the video clip. Landing on a song puzzle means you have to arrange notes to complete a portion of the tune. Videos and song puzzles are challenging; however, they garner 1000 points, compared to the 100 to 300 points awarded for trivia questions, so these rounds can rally a new leader from the pack.

Tuning in to your music knowledge was never so much fun, and this game guarantees that the reception is always excellent.

Native Know-It-Alls Radio Active's cast of characters are a bit off the wall, but they're fun to play against.

Turn It Up Radio Active's musical puzzles, chock-full of popular music, will keep you playing again and again.

THE BEST VALUE IN CD-ROMS

The World's Best Digital Photographs

- Coffee-table book and companion CD-ROM
- 120 high-resolution royalty free images
- Accompanied by inspirational quotes
- Selected from Corel Professional Photos, the world's leading photo CD-ROM collection

$39.90*

COREL ARTSHOW COLLECTION

- Each of the four coffee-table books and CD-ROMs in the collection contains over 3,000 images
- Available as a collection or sold separately
- The images were selected from the annual Corel World Design Contest
- Learn techniques from the pros

$69.90*

COREL GALLERY™

- 10,000 "drag and drop" or "cut and paste" clipart images (6,000 in color)
- Includes an easy-to-use Visual Clipart Manager
- Unlimited uses—brochures, newsletters, presentations, reports, invitations, memos, ads, and more
- Windows and Macintosh versions available

$39.90*

COREL™ PROFESSIONAL PHOTOS CD-ROM

- 100 razor-sharp photographs in the Kodak Photo CD format
- Royalty free and ready for color separation
- Can be converted to a variety of file formats
- Screen saver utilities included
- Hundreds of categories to choose from—and more each month
- PC and Mac compatible

$15.90*

TigerDirect

1-800-CD-TIGER

1-800-238-4437

Please mention code BTY

*US plus applicable taxes.

KUR-0095

COREL®

1-613-728-3733

Mind Your Money

Online investment services and advice turn your computer into a personal money manager

THE BEST financial advice your family can get is the kind specifically tailored to its idiosyncratic mix of needs, goals, aspirations, limitations, and cash on hand. The breadth of investment planning and portfolio information online — from investment tracking, buying, and selling for seasoned investors to basic investment advice for novices — is designed with your family's money matters in mind.

America Online

Your first stop on America Online should be the Personal Finance department. Click on the Personal Finance icon on the main screen to see a list of related areas, all of which — penny-pinchers take note — are part of basic services.

➤The Motley Fool

(Keyword **Fool**.) The Motley Fool is the most informative, fun-filled investment area anywhere online. Check out the Fool's School for investing tips, or follow real investments made by the Motley Fool staff in the Fool Portfolio area. You can throw in your lot with the Motley Fool and do what he does (Motley see, Motley do?), as he tells his plans to buy, sell, or sell short the night before making the transactions.

➤Your Money Forum

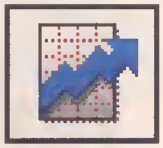
(Keyword **YourMoney**.) Interested in your family's long-term financial health? Check out Your Money's sections on financing your kids' educations, insurance and investment planning, and retirement and estate planning. Search for and download articles you need and begin building your own investment library.

➤AAII Forum

(Keyword **AAII**.) The information here is based on the American Association of Individual Investors journals *AAII Journal* and *Computerized Investing*. Learn about the basics of investing, buying stocks and mutual funds, dealing with your broker, and managing your portfolio. These articles don't circulate in other money publications, so you get an exclusive peek.

➤Vanguard Online

(Keyword **Vanguard**.) Find the Vanguard Group's latest investment news and educational materials about mutual funds. The company offers details about its investment options in Mutual Fund Campus, while the Planning & Strategy area helps you chart a course to reach your investment goals. Search its library for gotta-get articles, such as "The Ten Cardinal Sins of Investing."



➤Financial News

Business Week Online's (Keyword **BW**) Personal Business message board is filled with valuable comments about mutual fund investing. *Investor's Business Daily* (Keyword **IBD**) offers its own online library of money and finance information. Look in the Investor's Corner for everything from a review of current market conditions to a series of educational articles on investing. Or you can have an options alert sent to you by electronic mail every afternoon from the Wall Street Securities Objective Services Forum (Keyword **SOS**). Browse stock, mutual funds, and bond offerings on the Investors Network (Keyword **Investors**).

➤Personal Finance Software Center

(Keyword **PF Software**.) In this area,

ILLUSTRATION: WAYNE VINCENT ©

you can find dozens of shareware and public domain software files — everything from specialized spreadsheets, stock calculators, and market tutorials to files for monitoring your investments, tracking your expenses, and keeping all of your family's investments organized.

Investment Info Type a company name; get a profile.

CompuServe

Go **Money** or click the finance icon on CompuServe Information Manager's main menu to get to a list of more than a dozen forums and services. Many tools are not free; to use them, you must pay a surcharge in addition to the normal connect rates.

➤FundWatch Online

(Go **Money Mag**.) Sponsored by *Money* magazine, FundWatch is a mutual fund database with information on more than 1900 funds. This is a good place to find the best-performing funds with the lowest expense rates. Detailed reports list broker fees, phone numbers, and fund performance over the current month, current year, and one-, three-, five-, and ten-year spans.

➤Company Analyzer

(Go **Analyzer**.) This gateway area leads to news on prices, dividend history, company information, and various financial reports for publicly traded companies. Reports here come from various sources, and prices range from 25 cents per minute to $15 or more per report.

➤Financial News

Go **Basicquotes** to get prices for stocks, options, indexes, exchange rates, and mutual funds, or subscribe to Dun and Bradstreet's Electronic Business Directory (Go **DunSEBD**). If you're really adventurous, you can trade online with America's Electronic Brokerage (Go **Etrade**).

Prodigy

Ease your way into online investing and market information on Prodigy. More so here than with the other online networks, you will find investment areas designed to get you to subscribe to a product (some areas are surcharged, too). View a list of money management areas on Prodigy by clicking on the A-Z Index button from the Toolbar and typing the search word **Invest**. Or you can Jump **Investing** to get a list of investment services on Prodigy.

➤Investment Center

(Jump **Investment Center**.) From this menu you can reach five areas of investment information: Research Investments; Buy and Sell Stocks Online; Monitor Markets & Investments; Consult the Experts; and Communicate and Share Ideas. Click on Communicate and Share Ideas to get to the Money Talk Bulletin Board — a great place to find out what other family investors are doing.

➤PC Financial Network

(Jump **PCFN**.) The goal of this area is to get you started buying and trading stocks, bonds, and CDs online. To get you hooked, it lets you set up a demo account where you can practice trading without actually buying anything. This can be a very handy tutorial to online trading. If you get stuck during the demo, you can click on the Trade Assist button and the service will walk you through the entire session. Before you can make any real trades, you must open an account with PCFN; there is no monthly fee, but you have to pay a commission for every trade.

➤Boyd's investment Column

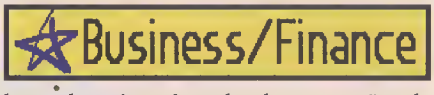
(**Jump Column**, then select Boyd on Investments.) Read investment information exclusive to Prodigy members in two daily investing features from national financial columnist Brendan Boyd.

➤Company News

(**Jump Company News**.) Read about the latest market news and company profiles from the Dow Jones News Retrieval Service. Search for stories up to twenty-one days old. Look for stories by company name, market symbol, or industry.

➤Strategic Investor

(**Jump Strategic Investor**.) This is an added-value service. Use it to screen, select, and evaluate more than 5000 stocks and 3600 mutual funds. There is more volume and depth of information here than in other databases on Prodigy. If you are an active investor, it may be worth the $14.95 per month it costs to subscribe.



eWorld's Business & Finance Plaza

Like any good virtual-world-in-miniature, eWorld (800-775-4556) has a Business & Finance Plaza with information on stock and mutual fund investing. Note: there are no informal savings and family-finance forums on eWorld. Check out Corporate Intelligence (SEC filings on companies you may want to invest in), Dow Jones Business & Financial News, and eWorld Market Quotes. Or click on News, Finance & Investments to get to more investment information in Decision Point, Money Matters, or the PC Financial Network (the same online discount broker available on Prodigy).

E-Mail Management

Organize online friends and neighbors in electronic address books

FOR MANY online enthusiasts, using electronic mail has grown rapidly from a wonder of modern technology to an everyday necessity. For people who rely on e-mail for communication, keeping all those e-mail addresses (in all those different formats) straight can eat up more time than it ever took digging out a dog-eared address book, pen, and envelope. Realizing what an annoyance e-mail addressing can be, online services built electronic address books into their front-end software.

Prodigy

Without a doubt, a list of names is easier to remember than a list of Prodigy IDs. To make up (somewhat) for the inexplicable practice of assigning random seven-character IDs to members, Prodigy lets you make a list of up to 100 addresses by name or nickname.

To set up such a list, **Jump Address Book**. You can place names in your book directly from a member list search, or you can enter them yourself. Once you've populated your address book with online friends and neighbors, the Locate option lets you search your list by name. Prodigy lets you insert Internet as well as Prodigy addresses. When it comes time to send a message, a few simple clicks place the correct address in the address field for you.

America Online

To add entries to your AOL address book, choose Edit Address Book from the Mail Menu. The rest is simple. To add a name, click on the Create button and then fill in the blanks in the on-screen form. You can also modify or delete entries by clicking on the appropriate buttons.

To insert addresses in outgoing mail, go to the Mail menu and choose Compose Mail (Command-M on Macs; Ctrl-M in Windows), click on the address book icon, double-click on the entry you want, and you're all set. AOL enters the screen name in the correct places in the mail window and your letter is addressed, stamped (virtually), and (when you hit Send Now) on its way.

CompuServe

The CompuServe address book is accessible from the tool bar in WinCIM or MacCim, or from the Mail menu. On the WinCIM or MacCIM tool bar, click on the Address Book icon (it looks like a hand writing in a book), and you can Add, Open, Delete, or Group e-mail addresses by clicking on the correct icon.

When sending mail, click on the TO: field of the mail form; your address book will open automatically. Next, address your message by highlighting the correct name in the list on the left, clicking on To:>>, and then clicking on Done.

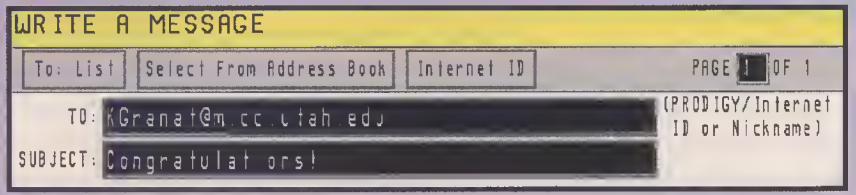
Internet E-Mail

It's nice to give (and to receive) e-mail from the Internet

You can send e-mail to friends on or through the Internet. With Prodigy and AOL, you simply type the Internet address of the person you're writing to: for example, TO:KGranat@m.cc.utah.edu. For Internet addresses with more than forty characters, Prodigy has a special messaging format. To use it, click on the button labeled Internet ID.

On CompuServe, you have to let the service know you're sending to the Internet. In the address portion of the TO: field of a mail form, type INTERNET: and then the address: for example, INTERNET:HFratesi@smith.edu.

For others to send you e-mail (or to send via the Internet to folks on other commercial services), your commercial address has to be modified. On AOL, your Internet address is your screen name plus @aol.com (e.g., FPCNomad @aol.com). On CompuServe, your address is your user ID, with a period instead of a comma, and @compuserve .com attached to it (e.g., 4774.1477@ compuserve.com). On Prodigy, use your Prodigy ID followed by @prodigy .com (e.g., ANVC84A@prodigy.com).



Colorforms® BRAND

COMPUTER FUN SET™

Our family keeps on growing!

The Colorforms® software family provides palettes of pre-drawn objects that your child can use over and over in endless combinations. Each package offers five different special effects options with sound and up to 12 pre-designed backgrounds—or your child can create totally new backgrounds.

Open your child's imagination to fun, adventure and learning with Colorforms for Windows or Macintosh:

- ***My First Colorforms® for ages 3-6***
- ***Computer Fun Set™***
- ***Suzy's Zoo® 4 Seasons of Fun***
- ***Blinky Bill™/® and his Bush Mates***

Available through CompUSA, Computer City and other fine stores – or call us at 1-800-795-0981.

COMPUSA THE COMPUTER SUPERSTORE®

COMPUTER City SUPERCENTER®

Gryphon Software Corporation
7220 Trade Street, Suite 120
San Diego, California 92121
(619) 536-8815
(619) 536-8932 Fax

GRYPHON™

©94 © Colorforms. All rights reserved. TM or ® indicates a trademark of Colorforms and is used by permission. Licensed in conjunction with Kiscom, Inc., Names International, Inc. and International Computer Group, Inc. The Gryphon logo and Computer Fun Set are trademarks of Gryphon Software Corporation. All rights reserved. Suzy's Zoo is a registered trademark of Suzy's Zoo. Developed and marketed under license for SUZY'S ZOO, San Diego, California, U.S.A.

The howler monkey's call can be heard for several miles.

Perfect material for a kid's story.

Kids will also have a great time writing about the eagle that flies 50 miles per hour. And the lizard that runs on top of the water. These are just some of the intriguing facts kids will discover as they explore *Destination: Rain Forest,* Edmark's new, interactive story-making CD-ROM from the *Imagination Express* series.

This colorful destination teaches kids about life in the Panamanian rain forest, while inspiring them to create interactive stories. Just as fascinating and educational are *Destination: Castle* and *Destination: Neighborhood,* all for kids ages 6-12.

Whether playing on their own or with friends, kids will find it easy and fun to select background scenes, plan the plot, narrate pages, and cast characters as well as animate them. They also get to add music and their own sound effects. Then they can watch their silly, exciting or suspenseful tale unfold right in front of their eyes, or print their own creations.

With every story that kids produce, they'll be strengthening their creativity, writing and communication skills. They'll also be doing lots of giggling, laughing and downright howling of their own.

EDMARK®

The Imagination Express series is available at Barnes and Noble, CompUSA, Computer City, Egghead Software, Electronics Boutique, Imaginarium, LearningSmith, Media Play, MicroCenter, Software Etc., Staples, Zany Brainy and other fine retailers. For more information about Edmark and our products, call 1-800-691-2986.

Online Adventures

Electronic encounters with the good, the bad, and the ugly

by Robin Raskin

WHEN MY SON turned eight, my husband and I told him we thought he was old enough to go online. His chest swelled with pride, although he admitted he wasn't quite sure what he wanted to do when he got there. He spent his first few America Online minutes browsing around the MTV offerings and checking out the kids' chat room. Then he gave me that "now what do I do" look. He owns a baby cornsnake, so in a creative flash, I suggested that he look for other people who were interested in snakes.

I showed him how to search through the user-profile listings to find anyone who used the word *snake* in their self-descriptions. Moments later, we received a somewhat shocking search retrieval. Our first *hit* (search parlance for a retrieved answer) was from someone who called herself "Snake Lady." Believe me, her interest in reptiles was secondary to her interest in finding men online. Our second hit was "Snake Eyes," a guy with Las Vegas crap tables on his brain. We'd conducted an innocent search and found ourselves smack-dab in the middle of the darker side of the online world.

It then occurred to me that, as experienced as I was with online activity, I could not predict what my son would find. And suddenly I was afraid to leave his side during his online explorations.

Preparing my son to navigate independently online was somewhat like teaching him strategies for dealing with strangers in the large city we live in. Yet — in spite of the two stories I'm about to tell you — I firmly believe that teaching children to be adept online is one of the most valuable things families can do with their computers.

We had conducted an innocent search and found ourselves in the middle of the darker side of the online world.

Online stories like my snake story abound, and plenty are worse. Consider the fifteen-year-old boy who dialed up an adult bulletin board and downloaded $70 worth of adult-content pictures. Or another fifteen-year-old — a girl — whose online friends became so important to her that when she decided to run away from home, she ran to an online "friend" she'd never met. The friend, it turned out, was a male in his mid-twenties who'd frequented the kids' chat groups on the online service, posing as a teen. (Note: the girl got home safely.)

The point of these two vignettes is to sharpen your awareness of the online world's complexity, to inspire you to actively be there for your child, and to induce you to venture out with your children before they turn fifteen, taking on the good, the bad, and the ugly.

It's not enough for you to provide a password and an account number. As a twenty-first-century Willa Cather might put it: the online world is the closest thing to a cowboy town we've had in a long while, and if you want the good guys and not the outlaws to win, you've got to be there, settling the frontier with family-

Illustration by Andy Levine

friendly people. You start by being right there at your children's elbow and then move to being nearby in the same room, and by the time the kids are in their teens, you'll be able to rely on good followup. When they've been online, do the same thing you do if they've been out all afternoon: ask where they've been, what they saw, and how it went.

Both of our daughters (ages twelve and fifteen) use online services as a fairly regular part of their lives. And every day, it seems, we discover some new tool that makes the experience even better. Our current "most useful" favorite is Prodigy's Homework Helper — a collection of useful excerpts from newspapers, magazines, photos, TV/radio programs, and reference books, all in a database designed for young students.

When your kids have been online, don't fail to follow up: ask where they've been, what they saw, and how it went.

Kids can pose questions using normal English language, as opposed to some cryptic search language. Just ask "Who was Clement Moore?" or "What were the factors that led to the Civil War?" and you'll uncover a list of articles, along with a relevance rating and a required reading level for each article. Open an article, select the Best Parts button, and you'll immediately find the spot in the text that best matches your search. At $9.95 a month (above and beyond the monthly Prodigy fees), this service seems like a bargain compared with joining an expensive and difficult-to-use service like Dialog, Lexis, or Nexis (which used to be the only alternative).

Don't be fooled: my kids' online life is not dominated by work. Their favorite online activity is socializing. Sometimes they talk to their friends in town (and believe me, typing a message is a much quicker, less expensive conversation than the average phone call). Sometimes they grudgingly talk to relatives who are also beginning to come online. But they seem to be most happy when they're talking to kids like themselves in faraway places. I always enjoy having them come to me and say, "Mom, guess what, I met a kid online who lives in Iowa and she is reading *To Kill a Mockingbird*, too." Kids take comfort in knowing that kids across the country have hopes, fears, jeans, and allowances similar to their own.

My kids also enjoy a few quasi-catatonic moments with the lighter side of online. Prodigy is filled with amusing online mazes, puzzles, and adventure games. The kids enter silly contests and laugh at corny bits of online humor. My son enjoys what I consider to be the most inane of trivia games on Prodigy. I admit that, as he plays for an hour at a time, I think of the phone bill and get nervous.

Certainly not all our online experiences have been triumphs — we've also shared frustrations. The kids have lost interest when downloads were painfully slow. They've waited in anticipation as an image downloaded to their computer, only to find out that it "wasn't a very cool picture anyhow."

They've begged to go to the "real" library when we couldn't seem to come up with the search word that would allow us access to the research materials we knew were there — somewhere. And they've been disappointed by much of the entertainment the services provide. My husband and I agree with them and are pleased to discover that our kids often show great judgment and good taste.

Our experiences online resemble an electronic scavenger hunt: sometimes we hit it, sometimes we don't. But nothing — not the possibility of a "dark encounter," not the frustration of a zero-results night when searching for information, not even an occasional sky-high phone bill — would keep me from using online services with my family. As we provide the tools and skills our kids will need in the future, we owe it to them to provide online experiences as a part of the equation. FPC

Robin Raskin *is the editor of* PC Magazine, *a coauthor of* Parents, Kids and Computers *(Random House), and the mother of three.*

NEW from Discis...

at an Amazing Low Price!

Choose from two collections: the timeless ***Folktales*** *and the amusing* ***Silly CDs*** *for early learning.*

Silly CDs Family Pack
For Children Ages 4-6
- My Silly CD of ABCs
- My Silly CD of Counting
- My Silly CD of Colors
- My Silly CD of Opposites

Folktales Family Pack
For Children Ages 6-12
- Paul Bunyan
- Johnny Appleseed
- Pecos Bill
- Northern Lights: The Soccer Trails
- Anansi: Three Tales

Discis *Books are recognized by educators as a valuable tool to help children gain reading confidence and develop a life-long love of literature. Compatible with IBM PC (MPC) computers and the Apple Macintosh, these entertaining CD-ROM books are now available in special* ***Family Packs*** *that deliver exceptional variety and value.*

For more information:
Call 1-800-567-4321

ANYONE can make real cartoons!

What makes *Big Top's Cartoon Toolbox* so different? Packed with the most brilliant graphics and animations this side of Mars, anyone can design, direct and create professional cartoons like the ones seen on television.

But better. Because you make them.

Here's what you get: Over 50 graphic-intense backgrounds, 220 eye-catching props, 30 scene-stealing special effects, 250 irresistible sound effects, over 300 character animation clips, and 30 music and ambient loops. And for you Felix* buffs, there are also 40 voice clips from the original 50's series.

And talk about easy! This program's ease allows the youngest to the oldest cartoon designer to create whatever cartoon scenario they want without having to consult a higher being, or worse, a manual.

Save and share your cartoon masterpieces with friends regardless of whether they have the Cartoon Toolbox on their computer or not. A built-in projector feature allows you to show your creations anywhere, anytime.

This program isn't just another game. Marking the end of passive entertainment, the Cartoon Toolbox allows anyone to develop and direct their own high-quality animations. This tears kids and adults away from the television, and prevents couch-potatoing, a mind-wasting disease that finally has found a cure.

Call 1-800-900-PLAY and say "I want Felix at Family PC" and get Big Top's Cartoon Toolbox Starring Felix the Cat at a fabulous price or pick it up at your favorite computer store!

Because having fun shouldn't be difficult.

These products available now from Big Top Productions!

Available on CD-ROM for Macintosh and Windows

Big Top products sold at CompUSA & Best Buy

Big Top Productions
548 Fourth Street
San Francisco, CA 94107
TOLL FREE: 1-800-900-PLAY
SALES DEPT: 415-978-5363
FAX: 415-978-5353
E-MAIL: info@bigtop.com
WEB: http://www.bigtop.com

*Trademark and © Felix the Cat Productions, Inc. The Groove Thing developed by BirdTree Associates with Big Top Productions, LP. Keroppi® Characters © 1988, 1994 Sanrio Co. Ltd., Hello Kitty® Characters © 1976, 1994 Sanrio Co., Ltd., Big Top's Cartoon Toolbox, The Groove Thing, Day Hopper software, and Big Fun Deluxe © 1994 Big Top Productions, LP. All Rights Reserved.

The Family PC toolbox

by Kim Komando

A set of software tools to diagnose, repair, and prevent common PC and Mac maladies

Every family's toolbox is different. But while the exact assortment of hammers and screwdrivers may differ from family to family, there are a few must-have tools necessary to keeping the old homestead running smoothly and in good repair. It's the same with your family PC and the software fixer-upper tools you need to stock in your family's software toolbox.

A well-equipped software toolbox can ease the pain and panic of receiving a disk error message or hearing the chimes of doom; even better, if you use these tools properly, you can prevent disaster. Here, we narrow the list of tweaks and tune-ups you can do to your computer to five common maintenance and problem-preventing routines — file backup, disk optimization, memory optimization, disk repair and recovery, and virus protection.

Illustration by Jonathan Charles Lund

We tell you what each maintenance routine is, when you need to be concerned about it, how it works, and, most important, which tools you need to use. You'll be surprised at the tools you already have built into your operating system, as well as those available in prepackaged toolkits such as Norton Desktop for Windows, The Norton Utilities for Macintosh, and Central Point's MacTools and PC Tools Pro (see "To Suite or Not to Suite").

File Backup

What is it? Whether it's your child's report on whales or your family budget, lose any of it and you're in big trouble. But natural disasters, power outages, software glitches, or even pressing the wrong combination of keys can cause files to be lost or ruined. Good backup habits — from saving important projects to floppy disk as you work to doing regular incremental backups — are among the most important computing skills you can learn (and teach your children).

When should I do it? Basically, if you put a substantial amount of time and effort into creating a document and you can't bear the thought of doing it over again, it's time to make a backup. If you're working on an important file, get into the habit of copying that file to a floppy disk every half hour. Many folks never make backups, and they learn the backup lesson the hard way.

You don't have to back up everything every time. Keep in mind when selecting the information to back up that you can restore applications from the original disks or CD-ROMs and restore urgent system information from the emergency disk you're going to create (see "Make an Emergency-Only Disk"). Realistically, you should make a complete backup of your hard disk (a full backup) at least once a month, and make a weekly backup of data files only (an incremental backup). If you are making any major changes to your DOS/Windows PC or Mac — perhaps adding a multimedia upgrade kit, a new motherboard, or more RAM — make a full backup beforehand.

How does it work? Software tools designed for backup make it easier to get information from your hard drive to floppy disks or a backup tape drive. They include automatic scheduling features, point-and-click backup of files and folders, and prompts for inserting and removing disks or tapes. Most even estimate the number of floppy disks or tapes you'll need.

Most backup software also compresses files. By selecting the maximum compression option, you may fit twice as much or more on a floppy disk or backup tape (files compress to differing extents).

Which tools do I use? Backup software is included in most operating systems — IBM PC-DOS, Microsoft DOS, Microsoft Windows, and some Macintosh system software for Performa computers.

IBM's PC-DOS is a customized version of the Disk Operating System developed by Microsoft (MS-DOS). Generally, PC-DOS and MS-DOS are identical, though some of the utilities differ. To find out the version

To Suite or Not to Suite

Why buy tools piecemeal when you can get a full starter kit cheaper?

The easiest and most convenient way to start assembling your family's software toolkit is to pick up a prepackaged suite of tools. Of course, a suite of tools reflects someone else's idea about what you should have; real do-it-yourselfers may want to go it alone to get more powerful, task-specific utilities. But for most families, a suite is the safest and cheapest way to start.

Symantec has all but cornered the market for prepackaged toolkits, offering The Norton Utilities 8.0 for DOS, The Norton Utilities for Macintosh 3.1, The Norton Desktop 3.0 for Windows, and Central Point's MacTools Pro and PC Tools Pro for DOS. *FamilyPC* suggests that families begin building a computer toolkit for DOS/Windows computers with The Norton Desktop 3.0 for Windows (Windows disk, $179; 800-441-7234), a full-featured, easy-to-use package with many file and program management utilities not included in The Norton Utilities suite. Most important, The Norton Desktop includes Norton Backup; The Norton Utilities does not. Central Point's PC Tools Pro for DOS has more utilities (including RAMBoost for optimizing RAM), but it has a less intuitive interface, and our reviewer found some of the utilities buggy (DOS disk, $179.95; 800-333-0744).

Macintosh families should start stocking their toolkits with either Norton Utilities for Macintosh 3.1 (Macintosh disk, $149; 800-441-7234) or MacTools Pro (Macintosh disk, $179.95; 800-333-0744). Like the Windows version of Norton Desktop, Norton for Macs has effective tools for backup, disk optimization, and disk repair and recovery. Its key shortcoming is its lack of virus protection — Symantec sells Symantec AntiVirus for Macintosh (SAM) as a separate product (Macintosh disk, $99; 800-441-7234). MacTools Pro has AntiVirus built in.

The more **fragments** a file is in, the longer it takes to **reassemble** it.

of DOS you have installed, type **VER** at the DOS prompt and press Enter.

IBM PC-DOS 6.3 and higher has a good backup program, Central Point Backup (**cpbackup**), that includes virtually all the features your family needs, including unattended scheduling. Microsoft DOS 6.0 and higher includes limited versions of Norton's DOS and Windows backup utilities; we suggest you include in your family PC toolkit the full suite of utilities in Symantec's The Norton Desktop 3.0 for Windows (see "To Suite or Not to Suite"). In the suite you'll find Norton Backup — a backup program that includes features not offered with the free MS-DOS backup software, such as automatic scheduling, macros, and support for a wide range of devices (e.g., tape backup drives).

Mac Performas include with the system software the barely passable Apple Backup utility; other Macs don't have any backup utilities. Apple Backup permits backups of only the System Folder or the entire hard drive. We recommend that your Macintosh family PC toolkit include either Central Point's MacTools Pro — which includes Central Point Backup, a full-featured backup utility for the Macintosh — or Norton Utilities for Macintosh 3.1, which includes Norton Fastback.

Whether you are backing up a DOS/Windows PC or a Macintosh, be sure to number the disks or tapes you're using — at recovery time, you'll be asked, "Please insert disk 5" or "Please insert tape 2." Finally, store your backup disks or tapes in a safe dry place away from your computer.

Disk Optimization

What is it? Your Mac or DOS/Windows PC saves files on a first-come–first-served basis. Very basically (and leaving some details out), if the first space it finds on the hard drive isn't big enough to hold the file, it puts some pieces of the file in that space, finds more space, and then keeps track of where it saved all the pieces. As a result, files are stored in "fragments" all over the hard drive. The more fragments a file is in, the longer it takes to reassemble it.

How does it work? Special utilities called *disk defragmenters* (or disk optimizers) reorganize the pieces of information on your hard drive. They look at the list of file fragment locations on a disk (called a File Allocation Table or FAT) and collect all of each file's pieces. Next, the defragger moves the files around so that the pieces are in contiguous blocks. You should experience a slight performance gain when your hard drive is defragmented. Plus, there's another benefit to having a neat and tidy disk: recovering some deleted files is more reliable on a defragmented disk (providing they haven't been written over already).

When should I do it? There is no rule about how often you should defragment your hard disk. Doing it a few times a month is a good idea. If you're adding or removing lots of files, defragment more often.

Which tools do I need? IBM PC-DOS 6.3 and higher includes IBM's defragmention utility (**Defrag**); MS-DOS 6.0 and higher has a defrag utility that is a scaled-down version of Norton Speed Disk (included in the Norton Desktop suite). Your family's DOS/Windows PC needs the added features of the entire Speed Disk program. In addition to doing everything the IBM PC-DOS and MS-DOS Defrag does, Speed Disk gives you several other options when defragmenting a disk. With the Windows version of Speed Disk, for instance, you don't have to exit to the DOS prompt to tune up the disk — you can do it directly from Windows.

Organize for Backup

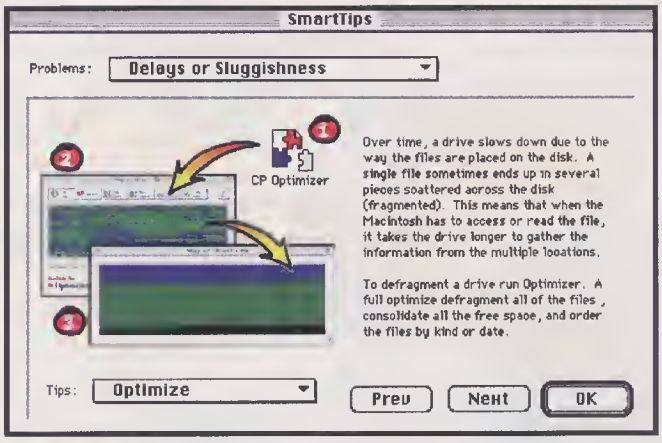
Create directories and folders that ease backup

The hardest part about making a backup is finding the files you want. To make backup easier, create separate directories or folders for all your data files (the files your family creates — from family finance spreadsheets to kids' digital slide shows) and store them apart from your applications (which you can easily reinstall). For example, save your text documents in one subdirectory or folder called WordDocs, and save your drawings in another called OurArt. Saving creations this way may take some getting used to (most applications automatically save your work in default directories), but when it comes time to make a backup, you'll find your data files easily and quickly.

If you plan to make a full backup of your system, consider backing up to something other than floppy disks — backing up a 250-megabyte hard drive requires roughly 170 floppy disks. The media you use is really a matter of personal preference and price — the main options are quarter-inch tape and high-capacity floppy drives. An internal QIC (quarter-inch cartridge) tape-backup drive costs about $150, and the tapes sell for as little as $12 each; the price of 100MB removable disk drives like Iomega's Zip drive has come down to around $200, with disks running roughly $15 each. If you purchase a backup drive, you're likely to get backup software with it.

If your family uses a Mac, you don't have a defrag utility built in, so you need to put MacTools Pro or Norton Utilities in your toolkit. MacTools Pro includes Optimizer; Norton Utilities includes the Mac version of Speed Disk.

In most cases, if you want to optimize your entire hard drive, including your system files, you need to boot your computer from a floppy disk (see "Make an Emergency-Only Disk"). If you don't, your computer will be using system files as it runs the defragmenting routines, and so it can't optimize those files. MacTools Pro makes it possible to optimize your entire hard drive without using a floppy disk, thanks to a new utility called RAMboot.



MacTools SmartTips MacTools includes brief tutorials, like the one here on disk defragmentation. The best part is, you find the answer by telling it the problem.

Memory Optimization

What is it? Even if you have enough RAM, you may not be getting the most out of it (especially on DOS/Windows PCs). Everything loaded onto your computer at start-up wants RAM, especially extensions and device drivers. That's where memory maximizing tools enter the picture. Remember, memory is a terrible thing to waste.

When should I do it? Anytime you add a new device or software program to your computer, it's a good idea to optimize your memory. Why? Some devices or programs added to your computer add lines to your computer's start-up files without asking you first. Even those that do ask may add things that throw your optimized computer a bit out of whack.

How does it work? Memory optimizers work differently for Macintosh, DOS, and Windows PCs because the memory in each type of machine is organized differently.

Macintosh memory is easiest to understand. Basically, you want to maximize the ratio of total RAM to the amount taken up by system software. Check out how you're doing by going to the Finder, pulling down the Apple menu, and selecting About This Macintosh....

DOS memory is more complex. A DOS memory optimizer's main purpose is to move device drivers that run the PC's sound cards, CD-ROM drive, and other peripherals out of the 640-kilobyte limitation of conventional memory to leave room for application programs (especially games). You see, even though you may have 4, 8, or even 16 megabytes of RAM installed in your PC, your DOS PC is still limited by a 640K barrier for running programs. Memory managers also make room for extended memory, the type of memory that Windows uses.

Windows memory maintenance is different still. When you receive an "out of memory" message in Windows, it usually means that you don't have enough of a Windows-specific memory pool called *system resources*. Although there may be RAM available, you can't use it if there aren't enough system resources.

What tools do I need? IBM PC-DOS and MS-DOS include built-in memory management tools that do much of the memory optimization work for you. They automatically move programs and drivers out of conventional memory and into upper memory (the memory between 640K and 1MB).

Microsoft added a program called Memmaker to MS-DOS 6.0 and higher. Memmaker figures out the best way to organize upper memory so you get the maximum amount of space in conventional memory to run programs. To run Memmaker, exit

Make an Emergency-Only Disk

Add to your toolkit an emergency disk with all your PC's vital resources

Besides the tools mentioned here, your family PC toolkit should include an emergency-only disk — a disk that contains the important files the computer normally looks for when you turn it on (start-up files) and other important files. Consider it a set of jumper cables for your PC: if a crash has made the hard disk unrecognizable at start-up, you may still get to the information on your computer by using an emergency start-up disk.

DOS users can make an emergency disk by placing a formatted floppy disk in drive A and, at the DOS C:> prompt, typing **SYS A:** and pressing Enter. In Windows, go to the Disk menu, select Make a System Disk, and follow the instructions. Take a few extra moments to copy other important files to the start-up disk: EDIT.COM, AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, and WIN.INI. The easiest way to find these files is to use the File Search feature in Windows File Manager and use the Copy command.

If all this sounds like a hassle, Norton Desktop for Windows includes Rescue Disk. This slick program makes a start-up disk for you and saves other important information, such as your PC's CMOS information and copies of other Norton recovery programs.

Mac users get the ultimate start-up disk free with all versions of System 7 and above. The Disk Tools disk includes copies of the System and Finder files, plus Disk First Aid and Apple HD SC Setup — the two files you may need if, at start-up, you see the flashing question mark instead of the smiling Mac.

Use your **disk repair** software to scan the hard drive for trouble spots **weekly**

Windows, type **MEMMAKER** at the DOS prompt, and press Enter. IBM's PC-DOS 6.3 includes Optimizer, a similar memory manager. In version 7.0 of PC-DOS, you get RAMBoost from Central Point Software, which analyzes and optimizes your computer's device drivers and resident programs each time you start up your computer. To configure RAMBoost, go to the DOS prompt, type **RAMSETUP,** and then press Enter.

Fantastic Five You've got the five basic repair and maintenance problems covered in a single visit to MacTools Clinic in Central Point's MacTools Pro.

Commercial programs such as QEMM from Quarterdeck (DOS/Windows disk, $99.95; 800-354-3222 or 310-392-9851) and 386Max from Qualitas (DOS disk, $99.95; 800-733-1377 or 301-907-6700) take a more aggressive approach to memory management and so make more memory available for running your DOS/Windows programs.

On a Macintosh, RAM is used for a few things, including the system software, applications, extensions, and control panels (there is no split between conventional and upper memory to worry about). The System and the Finder alone eat up 1400K of RAM; extensions can eat lots more (depending on how many you have). To free up the maximum amount of RAM, restart your computer with all the extensions turned off (hold down the Shift key as you restart). There is a downside to this trick. If your extensions are off, you can't use any of their features — that means no screen saver, no desktop printers, and no shared files.

All Macintoshes have a Memory Control Panel in the Control Panels folder. Macs running System 7.0 or higher have Virtual Memory and RAM Cache. For general-purpose family computing, we recommend setting the RAM Cache at 256K and leaving Virtual Memory off, because some applications won't run with it on. Only use Virtual Memory (which tricks your system into taking some hard disk space for use as RAM) as a stopgap — when you really need to run a program but don't have enough RAM. Of course, adding RAM is the best solution to a lack of memory; even so, you may want to think about including in your toolkit a third-party RAM optimizer such as OptiMem RAM Charger from Jump Development (Mac disk, $129; 800-586-7622) or RAM Doubler from Connectix (Mac disk, $99; 800-950-5880 or 415-571-5100).

Disk Repair and Recovery

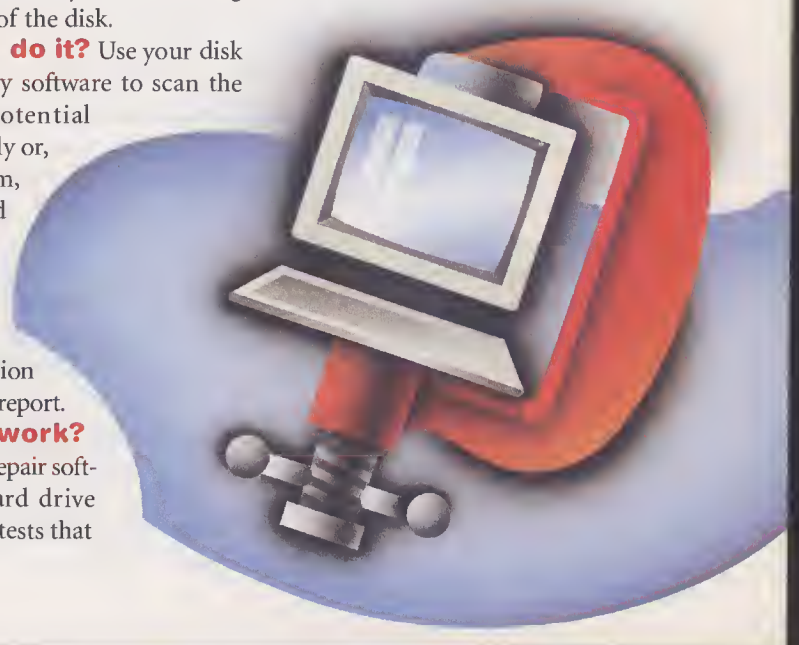
What is it? Hard disk drives are generally reliable, but, like any piece of complex machinery, they need upkeep. A tune-up of your hard drive using disk scanning and repair software may make programs work a bit snappier and prevent you from saving files on a bad part of the disk.

When should I do it? Use your disk repair and recovery software to scan the hard drive for potential trouble spots weekly or, at a bare minimum, monthly. You would not want to lose the last chapter of your soon-to-be best-selling novel or, worse, the only version of your child's book report.

How does it work? Disk scanning and repair software puts your hard drive through a series of tests that find and fix troublesome areas. If the program finds any breaches in the integrity of your hard drive, it moves the information stored in the trouble spot to an undamaged area of the disk. The software should report damaged directories, lost files, and areas on the disk that have become physically damaged and unusable. It should even help you undelete files you (or your child) accidentally dragged to the trash.

Which tools do I use? IBM's PC-DOS 6.3 and higher does not include a hard drive scanning and repair utility. Microsoft DOS 6.0 and higher includes a fairly good one, called ScanDisk. The biggest advantage of ScanDisk is that it's free with MS-DOS. Symantec's Norton Disk Doctor and Fix-It-Disk (part of Norton Desktop for Windows) and DiskFix (included in Central Point Software's PC Tools Pro) perform more rigorous testing. Norton Desktop also offers UnErase for retrieving those files you didn't mean to scrap (MS-DOS includes a limited version of Undelete).

To find potential problems on a Mac's hard drive, use Apple's Disk First Aid, which is included on the floppy disk named Disk Tools (for Performas, it's called the Utilities Disk). You can copy Disk First Aid to your hard drive and run it from there, but be aware that the utility won't repair your system disk, which is the disk you boot from. To



Families should run **antivirus** software **every time** someone turns on the PC

Norton Knows A neat, orderly, and complete family toolkit like the Norton Desktop Suite is tough to beat.

repair your entire hard drive, you need to run Disk First Aid from a bootable floppy disk, such as your emergency-only disk.

In addition to this free utility, your Mac family PC toolkit should include Central Point Software's MacTools Pro, which includes DiskFix, or Norton Utilities, which includes Norton Disk Doctor. DiskFix finds problems on your hard drive and repairs them better than Apple's Disk First Aid. Norton Disk Doctor — another more powerful disk repair and recovery utility — does the same.

Antivirus

What is it? Computer viruses are nasty programs that infect and destroy files on your hard drive. Antivirus software protects your computer from viruses, identifies viruses that make it onto your system, and helps get rid of them after your system is infected. You can catch a computer virus from downloaded software (commercial online services hunt viruses religiously, but some slip through), from sharing disks with coworkers or friends, or even from contaminated commercial software. A virus can lie dormant for months or even years. Antivirus software should find these viruses and snuff them out.

When should I do it? Families should run antivirus software every time someone turns on the PC (on Macs, put your antivirus program in the start-up folder; on many PCs, a virus checker runs at start-up). Also, use common sense: always check a disk from an unknown source; download files from an online service or BBS directly to a floppy disk and check them for viruses before uncompressing and installing them.

How does it work? Antivirus programs first must recognize viruses — a generic class such as Trojan horse (a virus hidden in a file posing as an application or game), or a specific virus (such as the Michelangelo virus that strikes on the anniversary of the artist's birth). If a virus is already on your system, your antivirus tool should remove it. Antivirus programs need to be updated regularly so they can effectively combat new strains of virus as they are created: the size of the database of known viruses within the antivirus software is important. The software also has to see stealth viruses that avoid detection and polymorphic viruses that change when antivirus software is in the area. The antivirus software should also run in the background and let you know when strange activity has occurred.

Which tools do I need? IBM PC-DOS 6.0 and higher includes the AntiVirus program made by IBM that, with version 7.0, detects over 2100 viruses. MS-DOS 6.0 and higher includes a DOS and Windows antivirus program that is a scaled-down version of Central Point's antivirus software, which tracks roughly 1000 viruses. (Typing **VSAFE** at the C:> prompt sets it up to run continuously in the background). Even though you can set up the antivirus software to automatically check your computer every time you turn it on or to check a floppy disk whenever one is inserted, neither is a very powerful program. If you're downloading or exchanging files, you need more.

For DOS/Windows PCs, the Norton AntiVirus software that comes with Norton Desktop for Windows is excellent. It has an easy-to-use interface and automatically detects more than 2000 viruses in compressed files, in the hard disk's boot sector, in the PC's memory, and in files. The program's biggest advantage is its Big Brother aspect — it keeps an eye out for any suspicious behavior even as you work.

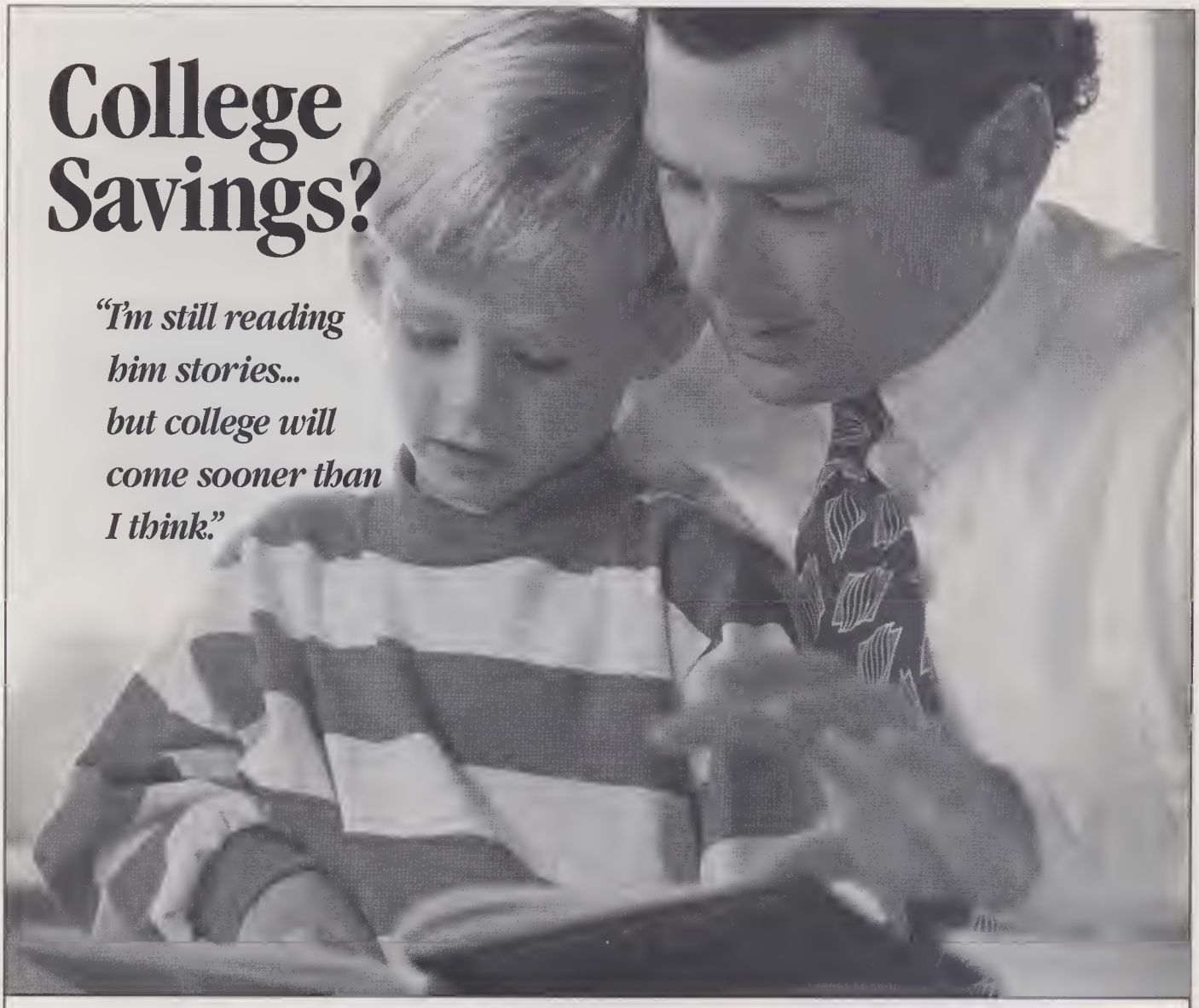
Mac system software doesn't include any antivirus software, but the freeware program Disinfectant has had a loyal Mac following for years (download a copy from the Macintosh Feature File Library in FamilyPC Online on America Online; Keyword **FamilyPC**). Central Point's MacTools Pro includes Anti-Virus, which also has background scanning.

The inherent challenge with any antivirus software is keeping pace with new viruses. You'll find regular updates to antivirus software as downloadable files on online services or BBSes, as well as from the software publisher. For the Norton and Central Point products, Symantec offers free updates through its BBS (503-484-6699 for modem speeds of 2400 bits per second and below; 503-484-6669 for 9600 bps and above) or through its areas on America Online (Keyword **Symantec**) and CompuServe (Go **Symantek**).

So there you have it — a software toolkit to help your family battle most PC problems and Mac maladies. Take care of these tools and use them regularly, and they'll take care of you. FPC

Kim Komando's *Help column will begin in the July/August* FamilyPC. *She is the author of* 1,001 Komputer Answers *(IDG Books).*

College Savings?



"I'm still reading him stories... but college will come sooner than I think."

It may seem far away, yet the best time to start saving for your child's college education is now. That's why we created ***The Fidelity College Savings Plan.*** It guides you through the steps you need to take today – so you and your child can have a head start on the high college costs of tomorrow. You'll learn about specially selected mutual funds with low minimums, and automatic investing options. You'll also receive a Worksheet that helps you assess how much you should be setting aside. The sooner you start saving, the easier it will be to have the amount you'll need to cover future college costs. Now that's a happy ending.

Call 24 Hours for a Free
Fidelity College Savings Plan Fact Kit
1-800-423-9998

Fidelity Investments®

2d

For more complete information including charges and expenses, call for a free prospectus. Read it carefully before you invest or send money. Fidelity Distributors Corporation.

Toyota wants to DRAG you CLICKING and SCREENING into the 21st CENTURY.

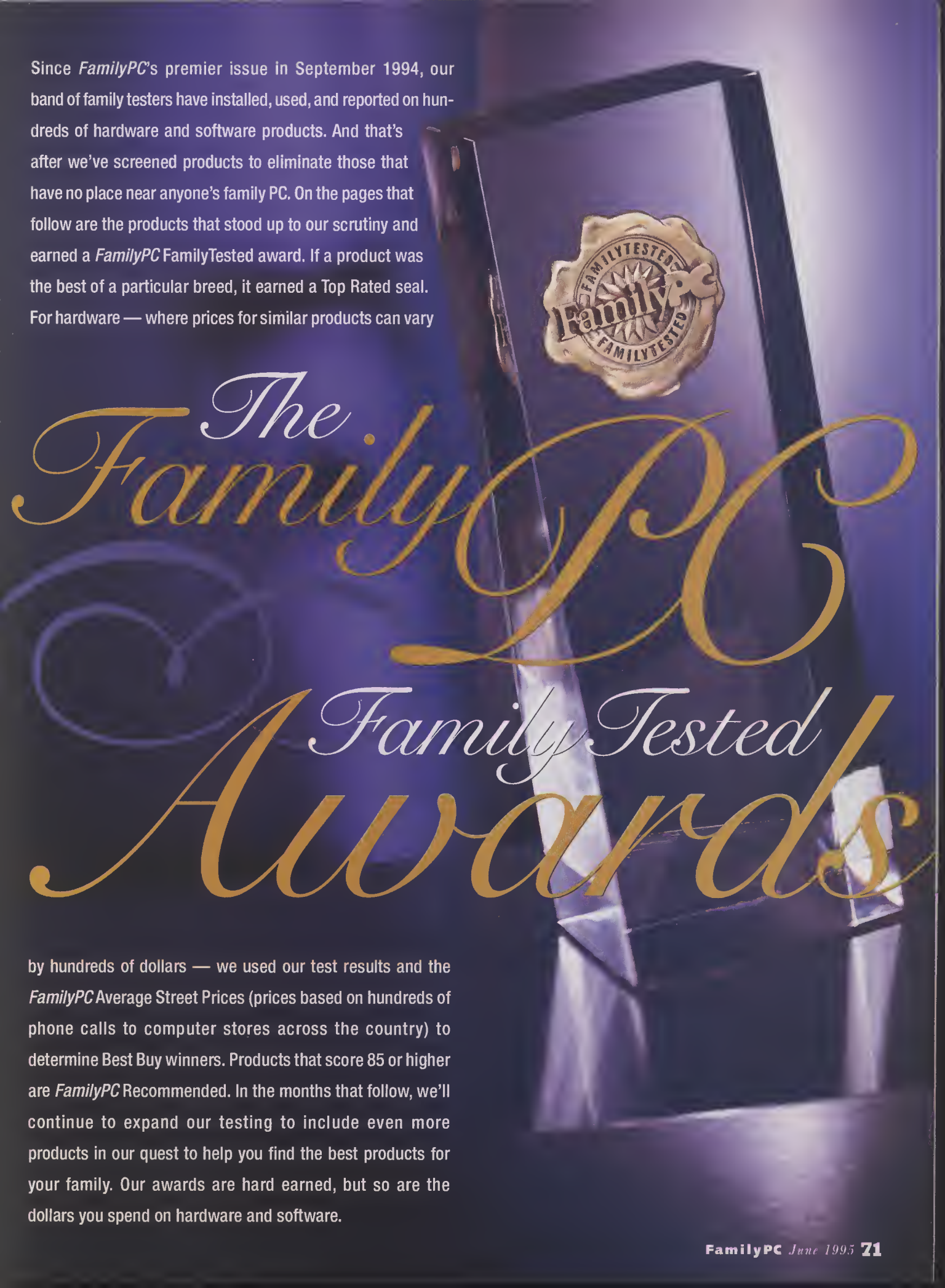
Imagine SEEING live footage of every Toyota Car, Truck, SUV and Van in any COLOR or from any ANGLE, right in front of your EYES. With all the information of every brochure right at your fingertips. All in STEREO. That's what you get with Toyota's new CD-ROM. And there's MORE: motorsports and racing coverage, manufacturing information, EASY explanations of Toyota's LATEST technologies, even a dealer locator.

So even if you don't know bits from bytes or highways from superhighways, at least you'll know EVERYTHING about Toyota. Call 1-800-GO-TOYOTA for your free Toyota CD-ROM today.

TOYOTA

I Love What You Do For Me

©1995 Toyota Motor Sales, U.S.A., Inc. Buckle Up! Do it for those who love you.



The Family PC Family Tested Awards

Since *FamilyPC*'s premier issue in September 1994, our band of family testers have installed, used, and reported on hundreds of hardware and software products. And that's after we've screened products to eliminate those that have no place near anyone's family PC. On the pages that follow are the products that stood up to our scrutiny and earned a *FamilyPC* FamilyTested award. If a product was the best of a particular breed, it earned a Top Rated seal. For hardware — where prices for similar products can vary by hundreds of dollars — we used our test results and the *FamilyPC* Average Street Prices (prices based on hundreds of phone calls to computer stores across the country) to determine Best Buy winners. Products that score 85 or higher are *FamilyPC* Recommended. In the months that follow, we'll continue to expand our testing to include even more products in our quest to help you find the best products for your family. Our awards are hard earned, but so are the dollars you spend on hardware and software.

Gateway Family PC 4DX2-66

FamilyTested Hardware Scores

Family Multimedia Systems

92 **Macintosh Performa 578**
Apple Computer
800-776-2333 or 408-996-1010
September/October 1994

89 **Family PC 4DX2-66**
Gateway 2000
800-848-2062 or 605-232-2000
September/October 1994

88 **P5-75 Family PC**
Gateway 2000
800-846-2062 or 605-232-2000
May 1995

87 **Macintosh Performa 6118CD**
Apple Computer
800-776-2333 or 408-996-1010
May 1995

85 **AcerAcros Pentium Minitower**
Acer America
800-368-2237 or 408-432-6200
May 1995

85 **Advantage Adventure 8090p**
AST Research
800-876-4278 or 714-727-4141
May 1995

85 **Pentium Multimedia System**
Packard Bell
800-733-5858 or 818-865-1555
September/October 1994

Family Multimedia Systems

AST Advantage Adventure 8090p

The top system family-tested so far by *FamilyPC* is the Apple Macintosh Performa 578, an elegant blend of performance, ease of use, and functionality. Since last fall, Apple has added two more Performa lines. One of the 630 Performas earned 4½ stars in a stand-alone review in our November/December issue, while the 6118CD — a member of the PowerPC-based 6100 line — won a Recommended award last issue. Apple remains the undisputed king of ease of use, though the release of Windows 95 later this year may eliminate much of the Mac envy experienced by Windows users.

The Mac Performa 6118CD

The evolution of the Performa line shows how family systems are fast incorporating the latest technology. On the Windows side, you can see this trend in the numerous Pentium 75, 90, and 100 systems offered with family bundles. One thing that hasn't changed, however, is our family testers' affinity for certain brands: Gateway is a favorite, and Acer, AST, and Packard Bell have figured large in our system roundups. In future, look for Pentium 120 processors, and look for Compaq and IBM to stake claims in the high end of the family market with family-friendly Pentium systems.

NEC MultiSync XV17

17-inch Monitors

98 **MultiSync XV17**
NEC Technologies
800-632-4636 or 708-860-9500
June 1995

96 **VisionMaster 17**
Iiyama
800-394-4335 or 215-957-6543
June 1995

93 **Valuegraph 447L**
Nokia Display Products
800-296-6542 or 415-331-6622
June 1995

88 **CTX 1765GM**
CTX International
800-888-2012 or 909-598-8094
June 1995

17-inch Monitors

One of the most surprising trends over the past year was how quickly big monitors became affordable to families. A year ago, 17-inch monitors typically sold for well over $1000; today, you can buy our Top Rated NEC MultiSync XV17 for about $800. Another positive trend in monitors has been the move to vertical refresh rates in the 74- to 76-Hz range. Such rates enable your monitor to create rock-steady, flicker-free images.

Over the coming year, watch for monitors that provide more on-screen controls and that work with the Plug-and-Play specifications of Windows 95.

CTX 1765GM

Clockwise from top: Hewlett-Packard DeskJet 560C, Canon BJ-200e, and Okidata OL410e

Printers for Work and Play

With family printers, the big story is ink-jets. Once thought of as lasers' poor cousins, ink-jet printers have become the preferred hard-copy output devices for families, primarily because families want color output. In the future, you'll see color ink-jets with better and better output, and black-and-white ink-jets with ever more affordable prices. You can also expect the main companies producing ink-jets — Hewlett-Packard, Canon, Apple, Epson — to try to outdo each other in bringing high-quality products to market.

The one place where lasers are holding their own is in the home office, where their crisper and faster text output often tells. Here, the trend is price; lasers under $400 will become commonplace this year.

FamilyTested Hardware Scores

Color Ink-Jet Printers

93 **DeskJet 560C**
Hewlett-Packard
800-752-0900 or 415-857-1501
September/October 1994

93 **DeskWriter 560C**
Hewlett-Packard
800-752-0900 or 415-857-1501
September/October 1994

90 **Canon BJC-600**
Canon Computer Systems
800-848-4123 or 714-438-3000
September/October 1994

89 **Color StyleWriter Pro**
Apple Computer
800-767-2775 or 408-996-1010
September/October 1994

86 **DeskJet 500C**
Hewlett-Packerd
800-752-0900 or 415-857-1501
September/October 1994

Family Laser Printers

92 **Okidata OL410e**
Okideta
800-654-3282 or 609-273-0300
November/December 1994

92 **Silentwriter Model 640**
NEC
800-632-4636 or 708-860-9500
November/Oecember 1994

90 **Silentwriter SuperScript 610**
NEC
800-632-4636 or 708-860-9500
November/Oecember 1994

90 **LaserJet 4L**
Hewlett-Packard
800-752-0900 or 415-857-1501
November/Oecember 1994

89 **MicroWriter PS23**
Texas Instruments
800-848-3927 or 512-794-5970
November/Oecember 1994

88 **ActionLaser 1500**
Epson America
800-289-3776 or 310-782-0770
November/Oecember 1994

86 **Canon LBP-430**
Cenon Computer Systems
800-848-4123 or 714-438-3000
November/Oecember 1994 (Report Card)

85 **LaserWriter Select 300**
Apple Computer
800-538-9696 or 408-996-1010
November/Oecember 1994

Black-and-White Ink-Jet Printers

93 **Canon BJ-200e**
Canon Computer Systems
800-848-4123 or 714-438-3000
March 1995

91 **DeskJet 540**
Hewlett-Packard
800-752-0900 or 415-857-1501
March 1995

91 **DeskWriter 540**
Hewlett-Packard
800-752-0900 or 415-857-1501
March 1995

87 **StyleWriter II**
Apple Computer
800-538-9696 or 408-996-1010
March 1995

85 **Stylus 800+**
Epson America
800-289-3776 or 310-782-0770
March 1995

Logitech ScanMan Color

FamilyTested Hardware Scores

Flatbed Scanners

92 **Canon IX-4015**
Canon Computer Systems
800-848-4123 or 714-438-3000
April 1995

86 **ScanJet IIcx**
Hewlett-Packard
800-722-6538 or 208-396-2551
April 1995

85 **TwainScan Duo 600**
Mustek
800-468-7835 or 714-250-8855
April 1995

Handheld Scanners

94 **ScanMan Color**
Logitech
800-231-7717 or 510-795-8500
April 1995

93 **ScanThis**
Umax Technologies
800-562-0311 or 510-651-8883
April 1995

85 **EnvColor.**
Envisions Solutions Technology
800-365-7226 or 415-692-9061
April 1995

Multimedia Upgrade Kits

88 **Reveal FX-08 Multimedia Kit**
Reveal Computer Products
800-326-2222
January/February 1995

87 **Sound Blaster Edutainment CD 16**
Creative Labs
800-998-1000 or 408-428-6600
January/February 1995

86 **Talon TA-400 Multimedia Kit**
insight Direct
800-249-4843
January/February 1995

Flatbed and Handheld Scanners

Canon IX-4015

Whether you select a handheld for convenience or a flatbed for volume work, nothing beats a color scanner as a way to get photos and other types of printed material into your multimedia creations. Price decreases over the past year — color flatbeds priced at under $500 are not uncommon — have just about squeezed gray-scale scanners out of the family market. This year, look for dedicated photo scanners, such as the Easy-Photo Reader from Storm Software, to provide strong competition for traditional handheld and flatbed scanners. Though not as versatile as traditional scanners, photo readers simplify the task of getting your family photos into your computer.

Multimedia Upgrade Kits

The past year was a banner one for multimedia kit vendors as families discovered the joys of multimedia software. One trend emerging this year is the proliferation of kits with specific software orientations. Instead of gearing kits to a cross-section of titles, kit vendors now provide products aimed specifically at people interested in games or education, to name two examples. And although vendors are getting better at making these kits easier to install, most people should probably still have the job done by a dealer.

The upgrade market still has a lot of life left in it, but with most machines now coming multimedia-ready, the days of the traditional multimedia upgrade kit are numbered.

EXPLORE the INTERNET!

FREE*

10 Hours FREE*

Delphi Internet™ offers you full access to the Internet and now you can explore this incredible resource with no risk. You get 10 hours of evening and weekend access to try it out for free!*

Use Delphi Internet's mail gateway to exchange messages with over 30 million people at universities, companies,and other online services such as CompuServe® and MCI Mail®. Download programs and files using **FTP** or connect in real-time to other networks using **Telnet.** You can also meet people on the Internet. **Internet Relay Chat** lets you "talk" with people all over the world and **Usenet News** is the world's largest bulletin board with over 20,000 topics!

now supporting 9,600 and 14,400 bps at no extra charge!

To help you find the information you want, you'll have access to powerful search utilities such as **Gopher**, **Hytelnet** and **WAIS**. If you aren't familiar with these terms, don't worry; Delphi Internet has hundreds of expert online assistants and a large collection of help files, books, programs, and other resources to help get you started.

Over 850 local access numbers are available across the country. Explore Delphi Internet today. You'll be amazed by what you discover.

TEN HOUR FREE TRIAL!*

Dial By Modem 1-800-365-4636, Press return until you get a prompt
At Username, enter JOINDELPHI. At Password, Enter FPC695

*Free offer applies to new members only, limit one per household and is valid for a limited time. A valid credit card is required for immediate access. Free time may be used only during the remainder of the calendar month of becoming a member. Telcom surcharges apply during business hours (6am to 6pm weekdays) via Tymnet or SprintNet and for access outside the mainland US. New members must agree to Terms and Conditions of membership when joining. Complete details and other restrictions are provided during the toll-free registration. DELPHI INTERNET is a trademark of Delphi Internet Services Corporation.

Attention Current Internet Users: See what Delphi Internet can offer you! Stock quotes, Grolier's Encyclopedia, newswires, and hundreds of other services are just a few keystrokes away. Telnet to delphi.com and enter the username and password above for a free trial.

DELPHI INTERNET™

Questions? Call 1-800-695-4005.
Send e-mail to INFO@delphi.com

©1995 Delphi Internet Services Corporation

Ozzie's World (see review, page 84)

Educational

Kids are learning sponges. Whether it's leading a multimedia adventure through ancient Greece or learning addition and subtraction from a cartoon gorilla in a bowling alley, if the subject is presented in a captivating way, kids will soak it up. Thanks to the combined efforts of educators and software developers, there are plenty of educational programs out there that make learning reading, writing, math, history, science, and computer skills more of an adventure than a chore.

Thinkin' Things Collection 2 (see review, page 88)

From the more than 250 educational programs on the market this year and last, *FamilyPC* editors selected nearly fifty based on our own comparative evaluations. We sent these to our FamilyTested panel of more than 500 parents, teachers, and kids, who tested them in their homes for several weeks and filled out evaluation forms based on their experiences. We arrive at a program's overall FamilyTested score by analyzing the feedback we receive. Any program that scores 85 or higher receives a *FamilyPC* FamilyTested Recommended seal.

FamilyTested Software Scores

Reading

91 **Arthur's Teacher Trouble**
Living Books
800-521-6263 or 415-382-4400
Ages 4 to 10
September/October 1994

90 **Bailey's Book House**
Edmark
800-691-2985 or 206-556-8484
Ages 3 to 6
September/October 1994

88 **Reader Rabbit's Ready for Letters**
The Learning Company
800-852-2255 or 510-792-2101
Ages 3 to 5
September/October 1994

87 **Follow the Reader**
Disney Interactive
800-688-1520 or 818-841-3326
Ages 5 to 8
September/October 1994

85 **Rusty & Rosy Read with Me**
Novell
800-451-5151 or 801-225-5000
Ages 3 to 7
September/October 1994

85 **Reader Rabbit's Interactive Reading Journey**
The Learning Company
800-852-2255 or 510-792-2101
Ages 4 to 7
May 1995

85 **Disney's Animated StoryBook: The Lion King**
Disney Interactive
800-688-1520 or 818-841-3326
Ages 3 to 9
May 1995

Math

89 **Math Rabbit**
The Learning Company
800-852-2255 or 510-792-2101
Ages 4 to 7
September/October 1994

88 **Early Math**
Sierra On-Line
800-757-7707 or 206-649-9800
Ages 3 to 6
September/October 1994

87 **Math Workshop**
Broderbund
800-521-6263 or 415-382-4400
Ages 6 to 12
May 1995

86 **Anno's Learning Game**
Putnam New Media
800-631-8571 or 703-860-3375
Ages 4 to 10
April 1995

85 **Millie's Math House**
Edmark
800-691-2985 or 206-556-8484
Ages 3 to 5
September/October 1994

Arthur's Teacher Trouble, Berenstain Bears: Learning at Home, and Recess in Greece

Math Rabbit, Putt-Putt Joins the Parade, and Math Workshop were all Top Rated in their age groups.

The programs that got the best responses from families integrated fun and learning and presented subjects in ways that grabbed and kept the kids' attention. Programs that made good use of animation and contained plenty of clickable surprises were big with kids.

Look for more entertaining, open-ended educational titles next year, inspired by the standards set by new programs such as Brøderbund's Math Workshop, The Learning Company's Reader Rabbit's Interactive Reading Journey, and Morgan Interactive's Recess in Greece, a multimedia history lesson that so far has received the highest FamilyTested overall score.

JumpStart Kindergarten prepares preschoolers for elementary school.

FamilyTested Software Scores

Science

90 **Magic Schoolbus Explores the Solar System**
Microsoft
800-426-9400 or 206-882-8080
Ages 6 to 10
June 1995

87 **What's the Secret?**
3M Learning Software
800-219-9022
Ages 8 to 12
June 1995

97 **Ozzie's World**
Digital Impact
800-775-4232 or 918-742-2022
Ages 3 to 8
June 1995

85 **Widget Workshop**
Maxis
800-336-2947 or 510-254-9700
Ages 8 and up
June 1995

History

92 **Recess in Greece**
Morgan Interactive
415-661-6856
Ages 7 to 14
May 1995

Multiple Activities

89 **Putt-Putt Joins the Parade**
Humongous Entertainment
206-485-1212
Ages 3 to 7
January/February 1995

88 **Berenstain Bears: Learning at Home, Volume Two**
Compton's NewMedia
800-284-2045 or 619-929-2500
Ages 3 to 7
January/February 1995

87 **Brain Quest for the 4th Grade**
Swfte International
800-237-9383 or 302-234-1740
Ages 9 to 10
April 1995

85 **Allie's Activity Kit**
Opcode Interactive
800-557-2633 or 415-494-1112
Ages 3 to 8
January/February 1995

85 **KidsTime Deluxe**
Great Wave Software
800-423-1144 or 408-438-1990
Ages 3 to 8
April 1995

85 **JumpStart Kindergarten**
Knowledge Adventure
800-542-4240 or 818-542-4200
Ages 4 to 6
May 1995

85 **Thinkin' Things Collection 2**
Edmark
800-691-2985 or 206-556-8484
Ages 6 to 12
June 1995

85 **Aladdin Activity Center**
Disney Interactive
800-688-1520 or 818-841-3326
Ages 5 to 10
June 1995

FamilyTested Software Scores

Reference

DINOSAURS
87 **Microsoft Dinosaurs**
Microsoft
800-426-9400 or 206-882-8080
Ages 6 end up
March 1995

KIDS' DICTIONARY
86 **My First incredible Amazing Dictionary**
Dorling Kindersley Multimedia
800-225-3362 or 212-213-4800
Ages 4 to 7
April 1995

KIDS' ANATOMY
86 **3-D Body Adventure**
Knowledge Adventure
800-542-4240 or 818-542-4200
Ages 8 end up
May 1995

86 **A.D.A.M.: The inside Story**
A.D.A.M. Software
800-408-2326
Agas 10 and up
May 1995

MISCELLANEOUS REFERENCE
85 **The Way Things Work**
Dorling Kindersley Multimedia
800-225-3382 or 212-213-4800
Agea 8 and up
Aprll 1995

MULTIMEDIA ENCYCLOPEDIAS
85 **Microsoft Encarta 1994**
Microsoft
800-426-9400 or 206-882-8080
September/October 1994

Productivity

INTEGRATED PACKAGE
85 **Microsoft Works**
Microsoft
800-426-9400
January/February 1995

85 **ClarisWorks 2.1**
Claris Corp.
800-325-2747
January/Febructy 1995

HOME PUBLISHING
87 **Microsoft Publisher**
Microsoft
800-426-9400 or 206-882-8080
May 1995

Reference

More and more developers are taking advantage of the storage capacity of CD-ROMs and creating content-rich reference programs. In addition to volumes of textual information, CD-ROMs can hold video, photographs, animation, and sound. Merging all these elements into a captivating, easy-to-use program is the trick that separates the great CD-ROM reference works from those that are little more than a book on-screen.

Though Microsoft Encarta pulled top honors among the 1994 multimedia encyclopedias, it has tough competition this year. Stay tuned for our September issue, where we look at this year's crop of encyclopedias, including updated versions and brand-new competitors.

Microsoft Dinosaurs, 3-D Body Adventure, and Microsoft Encarta

Productivity

For writing letters, building home budgets, and keeping track of the family's schedule, every family needs an integrated package. These all-in-one programs contain four basic components — a spreadsheet, a word processor, a database, and a drawing program — that work together to do various tasks, from organizing recipe files to itemizing weekly spending.

We tested three integrated packages, and the two top-scoring programs tied, with overall scores of 85. Families found Microsoft Works easiest to use and ClarisWorks more full-featured. New versions of both programs are available, and we'll let you know if either program has gained an edge.

We also tested home publishing programs. Microsoft Publisher scored an 87 and received top honors for its easy-to-use, powerful features.

Microsoft Publisher, ClarisWorks, and Microsoft Works

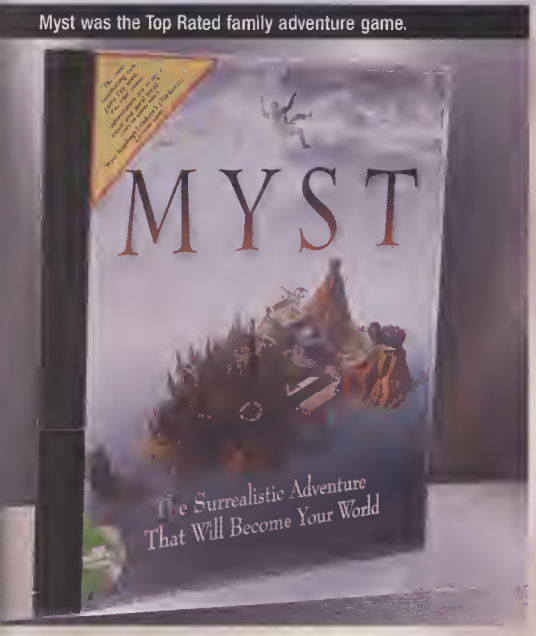
Creativity

Computers help kids express their creativity. Whether for drawing, painting, animation, publishing, or putting together a dazzling multimedia show, there are many good programs out there that will inspire the artists in your family.

The programs that families liked best feature a wide variety of premade stamps and easy controls to get kids going on their projects and keep them interested even after weeks of play. The best programs also allow children to save their work and send it as a stand-alone slide-show program or QuickTime movie to faraway friends and family.

The Print Shop Deluxe, Amazing Animation, and Kid Pix Studio

Look for more programs that provide an easy step into the complex world of multimedia authoring. Kid Pix Studio, Brøderbund's newest variation on its classic paint program, has set the standard to surpass in the category of kids' creativity tools. Also look for powerful, easy-to-use kids' creativity programs for more specialized projects, such as 3-D drawing and video editing.



Myst was the Top Rated family adventure game.

Entertainment

Forget Nintendo and Sega — games on the PC provide more depth of play, better action, strategy, and adventure, and most of all, more fun. Our family testers looked at games only once so far. They explored five family adventure games and found two to recommend: Myst, the beautifully rendered 3-D quest, and Inherit The Earth, a cartoon fairy tale in which you must win back your honor and restore the balance of the earth. Both games are nonviolent and allow kids and parents to share in the exploration and puzzle solving. Look for a slew of new games to hit the shelves for the next holiday season. Stay tuned for our November issue, where we'll present the results from our search for the fifty best family games. FPC

FamilyTested Software Scores

Creativity

PAINT AND DRAW

91 **Kid Pix Studio**
Brøderbund
800-521-6263 or 415-382-4400
Ages 4 to 12
June 1995

88 **Kid Pix 2**
Brøderbund
800-521-6263 or 415-382-4400
Ages 4 to 12
November/December 1994

87 **Flying Colors**
Davidson & Associates
800-545-7677 or 310-793-0600
Ages 8 and up
November/December 1994

86 **Crayola Art Studio**
Micrografx
800-678-3110 or 214-234-1769
Ages 8 to 12
November/December 1994

ANIMATION

88 **Amazing Animation**
Claris
800-325-2747 or 408-727-8227
Ages 5 to 14
April 1995

WRITING

88 **Storybook Weaver**
MECC
800-685-6322 or 612-569-1500
Ages 5 to 10
September/October 1994

87 **Creative Writer**
Microsoft
800-426-9400 or 206-882-8080
Ages 8 and up
September/October 1994

85 **Student Writing Center for Windows**
The Learning Company
800-852-2255 or 510-792-2101
Ages 10 and up
September/October 1994

85 **Imagination Express**
Edmark
800-691-2985 or 206-556-8484
Ages 6 to 12
June 1995

INSTANT PRINTING

85 **Print Shop Deluxe CD Ensemble**
Brøderbund
800-521-6263 or 413-382-4400
March 1995

85 **Print Artist CD Edition**
Maxis
800-336-2947 or 510-254-9700
March 1995

Entertainment

87 **Myst**
Brøderbund
800-521-6263 or 415-382-4400
Ages 8 and up
March 1995

88 **Inherit the Earth: Quest for the Orb**
New World Computing
800-325-8898 or 818-889-5600
Ages 7 and up
March 1995

8:03 PM
ABC
Hi Mom!
Math Factory

FamilyTested SOFTWARE

Scoring Methodology

FamilyTested scores are based on the experiences of more than 500 families recruited with the help of FutureKids, the world's largest franchised computer school. Families with children matching the recommended age group test software and complete evaluation forms. *FamilyPC* then collates the responses to arrive at scores for categories. The category scores are weighted and combined to determine a program's overall score. (Category scores are rounded from an initial score between 1 and 100 to a score between 1 and 10.) Programs scoring 85 or higher overall receive a FamilyTested Recommended seal.

Fun, determined solely by kids, is based on how enjoyable and captivating a program is.

Ease of Use considers how easy it is to get started and then move through the program.

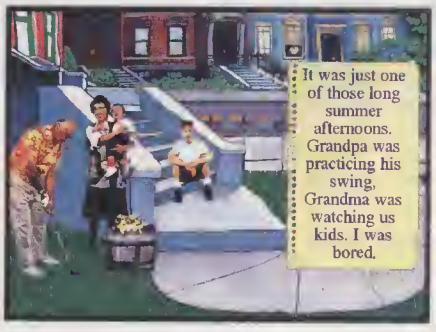
Replay indicates a program's longevity: whether a child will use it long enough to justify its cost.

Creativity measures how well a program inspires a child's creative process.

Education judges the educational value of a product as it relates to the main subject.

Page 82 Creativity programs

This month our FamilyTested panel awarded the *FamilyPC* Recommended seal to two creativity programs. Kid Pix Studio, the newest version of the classic paint program Kid Pix, offers young artists all the tools they need to create multimedia masterpieces. Imagination Express (at left), a storybook-making program, impressed testers with its colorful backgrounds and its photo-stickers, which change shape and size as kids reposition them on their stories' pages.



Page 84 Educational programs

Families also tested more than a dozen educational programs, but only five earned the *FamilyPC* Recommended seal. Four of them — The Magic School Bus Explores the Solar System, Ozzie's World, What's the Secret? (shown at right), and Widget Workshop — teach kids science in fun, interactive ways. In Thinkin' Things Collection 2, kids explore music and animation.

Illustration by William Whitehurst

Fun 9
Ease of Use.....9
Replay 10
Creativity.....9

$45
(estimated street price)

Format
Mac or Windows CD-ROM

Brøderbund
800-521-6263 or 415-382-4400

Creativity: Ages 3 to 12

Kid Pix Studio

Old favorite gets new tools for painting, animation, video, and sound

Based on the popular Kid Pix children's painting application, Kid Pix Studio has more than twice as many painting tools as the original program, plus three new components. It scored 9s in three categories and a 10 for replay, and received an overall score of 91, earning it a *FamilyPC* Recommended seal.

The original Kid Pix was a painting program with a glorious sense of fun and creativity — brushes draw goofy shapes and make silly noises, and erasers annihilate the screen in an explosion of color and sound. Kid Pix Studio builds on this framework by adding three new features — Moopies, Digital Puppets, and Stampimator — that make it easy for kids to add animation, video, sound effects, and music to any picture or SlideShow they create.

Moopies (which stands for *moving pictures*) takes Kid Pix's tools and adds animation to the Wacky Brushes. Lines wiggle and colors flash, making your child's pictures more fantastic than ever.

Digital Puppets are on-screen marionettes that children can control with keyboard keys instead of strings. Kids can add sound to their performances, and they can save them for later viewing.

Warp Speed New tools in Kid Pix Studio let kids twist and contort their pictures in crazy ways.

"Kids can use Kid Pix Studio for months and never do the same thing twice. It is an incredible source of creative entertainment for kids of many ages," said Andrew Hoffman from Newton, Massachusetts, father of Michael, age six.

Easy Animation

The Stampimator lets kids animate stamps against a background and a sound track. Kids can choose from 800 stamps and use up to four on a screen at once. With a mouse click, kids can program a stamp to move in a circular path, flip it from left to right at the end of a path, and do other tricks.

Children can choose backgrounds from the collection of crisp and colorful photos provided, or they can import Photo CD pictures and PICT and BMP files.

Wackier Still

Kid Pix Studio also contains Kid Pix's familiar complement of Wacky Brushes and outrageous erasers, only now they are even more remarkable. Electric Mixer effects can warp, twist, and stretch kids' pictures in outstanding ways.

"My child was able to design pictures in Kid Pix Studio that would be suitable for T-shirt screening," said Shirley Francis from Jacksonville, Florida, mother of David, age twelve.

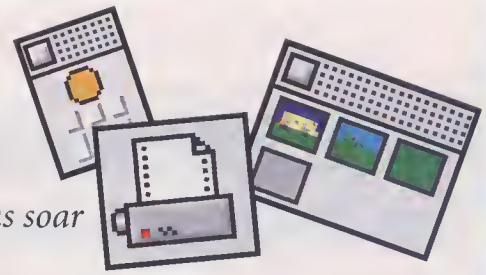
Kid Pix Studio also includes the SlideShow and Wacky TV features that debuted in Kid Pix 2. Wacky TV lets kids add special effects to any QuickTime or Video for Windows file (the CD-ROM includes 100 video clips). SlideShow lets kids string together photos, drawings, and sounds into a full-screen presentation. They can save their show on a floppy disk and send it to friends, who can play it on their computer even if they don't own Kid Pix Studio. Traditional software capable of performing these feats costs hundreds of dollars. Children can also save Stampimations, Moopies, and Digital Puppets as stand-alone applications.

"If you thought Kid Pix and Kid Pix 2 were great, get this one — I loved it," said DeeAnn Abaroa from Gilbert, Arizona, a teacher and the mother of Tyson, age ten.

Creativity: Ages 6 to 12

Imagination Express

Multimedia storybook maker lets imaginations soar



Tell Tale Backgrounds, sounds, words, and fancy stickers will bring out the author in every child.

IMAGINATION EXPRESS LETS kids create professional-looking multimedia storybooks with a minimum of fuss. Testers awarded it 9s for fun, replay, and creativity, earning it an overall score of 86 and a *FamilyPC* Recommended seal.

"Imagination Express allows a child to express himself in ways unimaginable," said Debra Bastien from East Greenwich, Rhode Island, the mother of Adam, seven. "He becomes the producer of his own story. He controls the scenery, the setting, the sounds, and the language. It makes the child think about all aspects of each scene, including the mood (when selecting the music)."

With Imagination Express your child chooses a *destination* — the theme on which her tale is based. Neighborhood and Castle destinations come with the program, and Edmark says it plans to publish more. Within each destination your child places backgrounds, stickers, text, and sounds onto pages and then plays the story back.

Backgrounds, including the inside of a mall and a row of houses, are colorful and beautifully detailed. Kids can set most backgrounds for different times of day, so the pages can show the passage of time.

Stick with It

The stickers are cut-out photographic images of all manner of people and objects, including children, adults, ironing boards, toy dinosaurs, and coffee pots. When kids drag them into a scene, they resize and change position automatically to conform to the setting.

Testers liked the stickers that came with the program but wanted more and a greater variety. Others wanted to be able to import graphics or create their own.

Kids can add sounds to stories by selecting one of thirteen music clips provided or by recording their own music, sound, or narration.

Kids can enter text in their book in one of four typefaces, five sizes, and twelve colors, and within one of five text borders (one, for example, resembles the torn-out page of a notebook). With all the elements of the story complete, kids can play it back, advancing one page at a time by clicking on an arrow. Some testers wished the program could play the story back automatically.

Themed Worlds Stories that kids create in Imagination Express are based on a destination; Neighborhood and Castle come with the program.

Photo Works The objects in Imagination Express automatically resize as your child moves them in a scene.

Fun	9
Ease of Use	8
Replay	9
Creativity	9

$35

Format
Mac and Windows CD-ROM

Edmark
800-691-2985 or 206-556-8484

OVERALL SCORE 90 FamilyTested SOFTWARE RECOMMENDED

Fun 9
Ease of Use.....9
Replay 9
Education 9

$49.95

Format
Windows CD-ROM

Microsoft
800-426-9400 or
206-882-8080

Education: Ages 6 to 10

Magic School Bus Explores the Solar System

Kids learn about the planets as they hunt for the Friz

Based on the popular book series of the same name, the Magic School Bus Explores the Solar System takes kids ages six to ten on an interplanetary voyage of education and fun. Families thought the CD-ROM was out of this world, giving it 9s in all categories and an overall score of 90.

In this title, teacher Ms. Frizzle gets lost in space. Your child's job is to explore our solar system aboard the Magic School Bus, collect clues, and find the Friz. Winning Whatsit games during his travels earns your child tokens that he can place in the Friz Finder to elicit clues about where the Friz is.

While kids are searching, they are also learning. They can read reports and get facts about the planets and watch video from NASA and the Jet Propulsion Laboratory.

The software also features nine science experiments kids can perform. In Design O' Ring, for example, kids create their own rings while learning that Saturn's rings are actually made of a combination of rock, ice, and dust.

"This software explored areas that have not been explored at school," said Ed Curtis from Ellicott City, Maryland, father of Kaitlyn, age seven. "It goes beyond astronauts traveling into space. The facts about each planet are well defined and presented in a manner that attracts kids' attention."

Driving Ms. Frizzle Learn about the planets as you pilot the Magic School Bus.

OVERALL SCORE 87 FamilyTested SOFTWARE RECOMMENDED

Fun 9
Ease of Use.....8
Replay 9
Education 9

$39.95

Format
Mac or Windows CD-ROM

Digital Impact
800-775-4232 or
918-742-2022

Education: Ages 3 to 8

Ozzie's World

A colorful place to learn about science and ecology

In Ozzie's World, kids ages three to eight learn about science and ecology through games, stories, and other activities. Testers found it a fun and informative place to visit, giving the program 9s in most categories, an overall score of 87, and a *FamilyPC* Recommended seal.

Ozzie is an otter, and his world is a place where hoses talk, lettuce leaves shiver, and other magical things occur. The program contains instructions for forty hands-on science activities that kids can conduct away from the computer. In one, kids learn how rainbows form and how to use a garden hose to make a rainbow of their own in the backyard.

Ozzie's Coloring Book includes forty pictures that kids can paint and print. Six Dreamstarters stories contain earth-friendly themes that you can read to your kids (one begins, "Imagine you are the Earth. Your body is round like a globe.").

To access some activities, kids must click the mouse while holding down the Shift key. Some younger testers found this technique difficult and said it took a while to get used to.

All testers agreed, however, that the activities in Ozzie's World provided a fun, captivating way to teach. "Nonreaders can use the software and learn scientific concepts," said Carol Batchelder, a teacher from Narragansett Elementary School in Rhode Island. "They can develop and practice skills in sorting, classifying, and matching, which will aid in their reading development and in the development of mathematical concepts."

Gone Fishin' Kids learn about their environment through experiments and games in Ozzie's World.

To make multimedia accessible to the masses, we made it affordable to the masses.

Sound Blaster Upgrade Kits.
The Best Value In Multimedia.

Each kit has a collection of today's hottest software. Sound Blaster Value CD™ includes 12 titles like Grolier Multimedia Encyclopedia.™ Sound Blaster Discovery CD™ New Edition has 18 titles including Strike Commander® and Eagle Eye Mysteries.™ For a more educational package, get either Sound Blaster Digital Schoolhouse™ with 20 titles like KidWorks™ 2, or the Sound Blaster Edutainment CD™ 16 with 42 titles including Seawolf™ and Scooter's Magic Castle.™ And gamers will go berserk for Game Blaster CD™ 16 and its 17 titles like Rebel Assault™ and Return to Zork.™

Ah, the American Dream! Two cars in every garage and a multimedia kit in every household. Because Sound Blaster multimedia kits are now at prices we all can afford. Inside every kit, you get everything you need to turn an ordinary PC into a screamin' machine. Like a genuine Sound Blaster 16-bit sound card—the PC sound standard. Plus a super-fast CD-ROM drive and stereo speakers.

Of course, these kits are easy to install and are WaveTable upgradeable. And they all sport the Sound Blaster Compatibility Logo to ensure quality. They're the best deal in town since a gallon of gas was a nickel. Find them in stores everywhere or call 1-800-998-5227 Ext. 122.

CREATIVE™
CREATIVE LABS, INC.
multimedia is Creative

© 1995 Creative Technology Ltd. Sound Blaster, Sound Blaster Value CD, Sound Blaster Discovery CD, Sound Blaster Digital Schoolhouse, Game Blaster CD, Sound Blaster Edutainment CD, the Creative, multimedia is Creative, and Sound Blaster Compatibility Logos are trademarks of Creative Technology Ltd. International inquiries: Creative Technology Ltd., Singapore. TEL: 65-773-0233 FAX: 65-773-0353. For information by fax response, call 1-408-428-2389.

Education: Ages 8 to 12

What's the Secret?

Learn science fundamentals by exploring familiar phenomena

OVERALL SCORE 87 FamilyTested SOFTWARE RECOMMENDED

Fun 8
Ease of Use 10
Replay 9
Education 9

$59.95

Format
Mac and Windows CD-ROM

3M Learning Software
800-219-9022

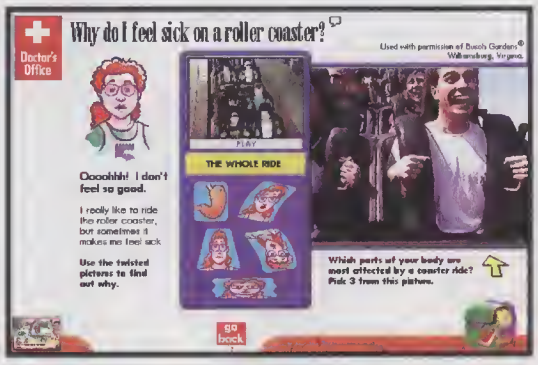
Based on Public TV's family science show *Newton's Apple*, What's the Secret? takes kids on a compelling multimedia journey to the scientific underpinnings of everyday phenomena. Testers' experiments with the CD-ROM produced impressive scores of 9 for replay and educational value, 10 for ease of use, and an overall rating of 87.

Through colorful diagrams, animation, video, audio, and text, What's the Secret? answers such questions as "Why does my heart beat?" "How many pieces can a pizza produce?" and "What keeps a roller coaster going?" The program encourages kids to discover the answers for themselves, through a series of experiments at and away from the computer.

In the roller-coaster section, for example, kids can roll an on-screen ball down a track and adjust the level of friction as the ball rolls, thus discovering the relationship between friction, kinetic energy, and potential energy (explanations of tough words are provided).

Each section includes an experiment for kids to perform away from the computer. The roller-coaster section, for example, contains an experiment using string, a rubber band, some books, and some pens to illustrate the theory of friction posited by Newton and Galileo.

Narrated video clips further explain the scientific principles in each section. For the roller-coaster section, for example, the clips show sledding, luging, and traveling in an elevator.



Serious Fun Kids discover for themselves the answers to everyday puzzles.

Education: Ages 8 and Up

Widget Workshop

Kids experiment with science in this construction set

OVERALL SCORE 85 FamilyTested SOFTWARE RECOMMENDED

Fun 8
Ease of Use 9
Replay 8
Education 9

$44.95
(*street*)

Format
Mac disk

Maxis
800-336-2947 or 510-254-9700

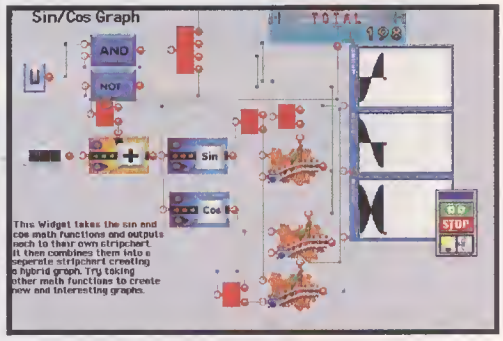
Widget Workshop teaches kids principles of science as they assemble contraptions and conduct experiments using on-screen components. Families gave the program a 9 for its educational value, a 9 for ease of use, and 8s for fun and replay, which added up to an overall score of 85 and a *FamilyPC* Recommended seal.

Widget Workshop contains dozens of parts and pieces that kids can combine in a seemingly limitless variety of ways. Touching on subjects such as physics, math, logic, and sound, you and your kids can experiment with light, color, time, gravity, random numbers, logic, mathematics, switches, planets, pendulums, cannons, and even human and animal hearts.

For example, what do you get when you combine two 10-Digit Displays, a 3-Digit Number, a Multiplier, a Two-Way Splitter, a Stopwatch, a Math Function, and three Keypresses? Answer: a Falling-Through-Space-Ometer that tests Galileo's observations about gravity.

Widget Workshop comes with a handbook that contains examples of working widgets, and online help is available.

"Widget Workshop takes creativity software to a new level," said Kimo Carter, a teacher from Lexington, Massachusetts. "Not only does it let kids build a wide variety of contraptions and scientific experiments, but the building blocks [the widgets] are interesting in and of themselves. This is a demanding program for kids, one that forces them to really think and solve problems." Because of this, Carter said, some kids may need help from adults to get used to the program.

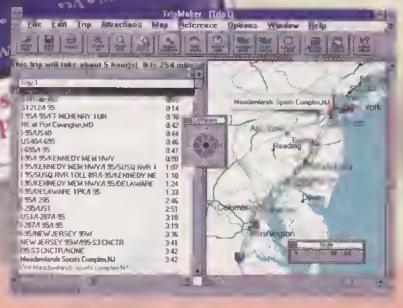


Inside Story Kids learn principles of science as they assemble contraptions.

RAND McNALLY

TWO FOR THE ROAD

The #1 Seller



FREE SkyTel® pager

*For 30 Days**

(Valid through Sept. 5, 1995)

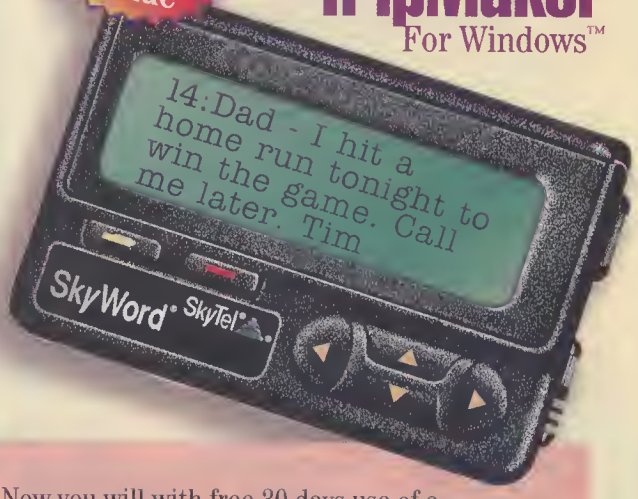
with nationwide messaging

with your purchase of

TripMaker™

For Windows™

$89 Value



Have you ever received a bonus for planning a vacation? Now you will with free 30 days use of a SkyTel® pager with nationwide messaging services when you purchase **TripMaker**. Not only will you have the security of knowing you have immediate access to friends, family and the office from anywhere in the U.S., but also the assurance of knowing you'll get to your destination quickly and easily using "the best road atlas and trip planner, ever!"

You can rely on the expertise of America's Travel Authority™ with this all-in-one computer software solution for planning road trips in the United States, Canada, and Mexico. It is the most accurate guide to more than 640,900 miles of road and 125,000 cities and towns.

TripMaker, available on CD-ROM or diskette, makes getting there half the fun.

"Don't Leave Home Without It. Here's a must-have for long-distance drivers."

–Publishers Weekly

"Finally a developer has created a travel planning program with real depth. Rand McNally TripMaker will be the clear category winner."

–Soft•letter

"This was the first program I tried, and it turned out to be the easiest to use…I'll be taking TripMaker's directions with me…"

–USA Today

Buy TripMaker wherever software is sold

or call

800-671-5006 Ext. 156

or 716-871-7704

*Available only for new subscribers of SkyTel who satisfy applicable qualifications. Some restrictions may apply.

© 1994 Rand McNally. TripMaker and America's Travel Authority are trademarks of Rand McNally. SkyTel is a division of Mobile Telecommunication Technologies (MTel). SkyTel and SkyWord are trademarks of SkyTel Corp. All other product names are trademarks of their respective holders. See the TripMaker package for more details on this promotion.

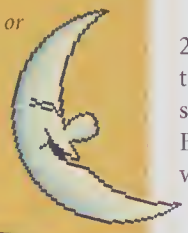
OVERALL SCORE 85 FamilyTested SOFTWARE
RECOMMENDED

Fun.....8
Ease of Use.....9
Replay.....8
Education.....8

$40

Format
Mac, DOS, or Windows disk or CD-ROM

Edmark
800-691-2985 or 206-556-8484



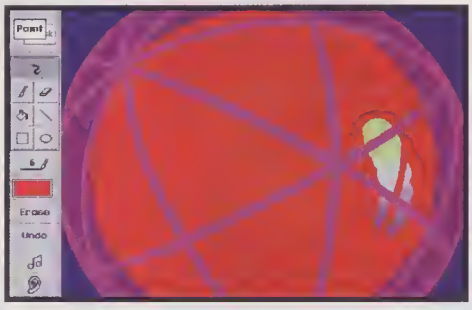
Education: Ages 6 to 12

Thinkin' Things Collection 2

Music and multimedia entice kids to stretch their imaginations

THINKIN' THINGS Collection 2 is a toe-tapping, brain-flexing mixture of music and multimedia activities for kids six to twelve. Testers didn't have to think long in awarding it a 9 for ease of use and 8s in all other categories. Overall, it received a score of 85 and a *FamilyPC* Recommended seal.

Thinkin' Things Collection 2 consists of five colorful activities that provide artistic inspiration. In Oranga Banga's Band, kids learn about rhythm when they conduct an orangutan, a crocodile, and a dog playing wacky percussion instruments. By clicking on a grid, kids can control when each creature will play during a 16-beat sequence. In the Q&A section, kids can test their auditory discrimination by figuring which critter played which line of music. You can set the difficulty level from beginner to advanced. Frippletration, which can also be set for multiple levels of difficulty, is a memory game for one or two players that tests kids on things they see and hear.



3-D Delight Combining graphics and music, kids experiment with dimensions and optical illusions.

2D-3D Blox and Snake Blox let kids explore and experiment with dimensions and optical illusions. Toony's Tunes again gets kids' toes tapping as they improvise on four special xylophones.

"Your children will love Thinkin' Things," said Carol Batchelder, an elementary school teacher in Narragansett, Rhode Island. "It also promotes creativity, creative thinking, and problem solving."

OVERALL SCORE 85 FamilyTested SOFTWARE
RECOMMENDED

Fun.....8
Ease of Use.....10
Replay.....8
Entertainment.....9

$30
(estimated street price)

Format
Mac and Windows CD-ROM

Disney Interactive
800-688-1520 or 818-543-4372

Entertainment: Ages 5 to 12

The Aladdin Activity Center

Explore a whole new world of games, puzzles, and art activities

THE ALADDIN Activity Center lets kids five to twelve explore a whole new world of games, puzzles, and art activities based on the popular Disney movie. The CD-ROM was a hit with testers of all ages.

In the Activity Center, kids can visit the Cave of Wonders, the Royal Palace, or the Agrabah Marketplace and solve picture puzzles, play memory games, navigate mazes, connect dots, and paint with crayons and paints. Each activity offers three levels of difficulty. If kids have problems figuring out how to play a game, they can click on the Clue icon for assistance.

Screen Magic Six extended video clips, including a full-length song, bring back memories of the movie.

In Sultan's Theatre your child can watch six clips from the movie *Aladdin*, including the swooping carpet ride featuring the song "A Whole New World." Although viewing the clips in a tiny computer window doesn't qualify as a "big-screen experience," it did bring back memories of the movie for some kid testers.

"I would highly recommend Aladdin because of the many activities," said Janet Talton, mother of Jeremy, age six, from Virginia Beach, Virginia. "Because my son was familiar with the characters — and with the help of the Genie — he never got frustrated and was anxious to show his friends."

COREL® STOCK PHOTO LIBRARY

Royalty Free, High Resolution

Kodak Photo CD Format

PC & Mac Compatible

Ideal for Desktop Publishing

200 CD-ROMS! 20,000 PHOTOGRAPHS!

ALSO INCLUDES:

- **Corel Visual Database** - Search for specific images from the 20,000 photographs available using descriptive keywords.
- **Full Color Reference Manual** - Displays all 20,000 photographs.

OTHER UTILITIES:

- **Corel Photo CD Lab**
- **Corel Mosaic Visual File Manager**
- **Corel Artview Screen Saver**
- **Corel CD Audio**
- **Windows Wallpaper & Flipper**

- **HIGH RESOLUTION** - 5 resolutions from 128 X 192 up to 2048 X 3072. Each image is approximately 18 megs (uncompressed).
- **COLOR FUNCTIONALITY** - Grayscale, 16 colors, 256 colors or RGB (24 bit).
- **EXPORT FILTERS** - Windows: TIF, BMP, EPS, PCX or GIF. Macintosh: TIFF or PICT.
- **COMPATIBILITY** - Can be read by any CD-ROM player (XA support not needed). All photographs are in the Kodak Photo CD format.

$695.00*

VOLUME SETS

25 CD-ROMs
2,500 Photos

- Selected from the Corel Professional Photos collection on CD-ROM!

$129.00* each

INDIVIDUAL TITLES

- 100 stunning photographic images on CD-ROM.
- Hundreds of individual titles available.
- The world's largest collection of royalty free stock photography images.

BEST Home Office BUY

$19.00* each

COREL GALLERY 2

FOR WINDOWS

- 15,000 clipart images and symbols
- 500 fonts • 500 photos
- 75 sound clips • 10 video clips
- Plus a visual multimedia file manager

$62.00* each

Since 1982
ComputAbility
Consumer Electronics

Call Now!
1-800-554-1635
source code K=ICOR

*US$ plus applicable taxes.

COREL®
Call now for faxed literature!
1-613-728-0826 ext. 3080
Document #1039

$ ATTENTION $
PROFESSIONAL PHOTOGRAPHERS!
If you are a professional photographer interested in having your photographs published in the world's leading photo CD-ROM collection, please call Corel Corporation at:
1-613-728-0826 ext. 85080

Cards

Labels

Newsletters

Magazines

T-Shirts

Packaging

Annual Reports

KUR-0105

Monker's Math Factory

Overall: 84 (Fun: 9; Ease of Use: 9; Replay: 8; Education: 7)

By guiding a furry, friendly Monker through a colorful maze, kids ages six to eight practice addition and subtraction. The Number Machine drills kids on counting and rewards them with a small animated prize. This program missed the *FamilyPC* Recommended seal by just one point. "This is an excellent math program. Both of my children, ages five and nine, thoroughly enjoyed it," said Leesa Richardson from Louisville, Kentucky. "It reinforces much of what my third-grader is learning and reviewing this year."

Step Ahead Software, *800-236-7123; Mac or Windows disk, $24, or CD-ROM, $29.*

Planetary Taxi

Overall: 82 (Fun: 8; Ease of Use: 9; Replay: 8; Education: 8)

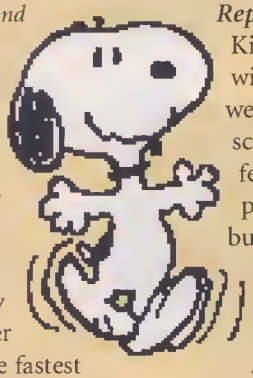
Kids zoom through the solar system at the wheel of a cosmic taxicab, learning facts about physics and astronomy and viewing movies of space missions and NASA flybys. "Planetary Taxi is a very high-interest game," said Brannon Clark, a teacher from Gilbert, Arizona. "Kids think they are just playing a game and not learning, but little do they know."

The Voyager Company, *800-446-2001 or 212-431-5199; Mac and Windows CD-ROM, $39.95.*

Super Solvers Gizmos & Gadgets

Overall: 80 (Fun: 9; Ease of Use: 8; Replay: 8; Education: 7)

Kids ages seven to twelve try to outsmart Morty, the Master of Mischief, by building the fastest vehicle. To do this they must gather parts by solving puzzles that touch on the science of everyday objects, like wheelbarrows and wrenches. "A perfect tool for learning about simple machines in an educational and entertaining format," said Susan Naysnerski, an elementary school teacher from Narragansett, Rhode Island.



The Learning Company, *800-852-2255; Mac, Windows, or DOS disk or Mac and Windows CD-ROM, $45.*

Etch A Sketch

Overall: 80 (Fun: 8; Ease of Use: 9; Replay: 8; Creativity: 8)

As a computer program for kids four and up, this toy includes color effects like blends and animations, and sound effects. The program also features a dozen interactive drawing activities and games, including one in which kids construct landscapes from scratch.

ScreenMagic, *415-648-8056; Windows disk, $19.95 street.*

Math Dodger

Overall: 79 (Fun: 8; Ease of Use: 8; Replay: 8; Education: 8)

This program, which plays like a video game, helps kids six to fourteen sharpen their skills in counting, addition, subtraction, multiplication, and division. Testers thought the program provided good reinforcement of these skills but doubted it would hold kids' interest.

Arcadia Productions, *800-545-7677 or 310-793-0600; Mac or Windows disk, $39.95.*

Master Snoopy's Math

Overall: 79 (Fun: 8; Ease of Use: 9; Replay: 7; Education: 8)

Kids three to ten play math games with the Peanuts gang, including weighing pumpkins and adding up scores in a game of darts. Testers felt the program was good for practicing some basic math skills but wasn't clearly aimed at any one age group. They also noted that it lacked subtraction practice.

Image Smith, *800-876-6676 or 310-325-5999; Mac or Windows CD-ROM or disk, $19.95.*

Memphis Math: Treasure of the Tombs

Overall: 77 (Fun: 8; Ease of Use: 7; Replay: 8; Education: 8)

Kids eight to fourteen travel to Egypt to study mathematics and search for the long-lost Equations of the Pyramids. Along the way, through a series of games and tests, they learn about fractions, decimals, and percentages. Testers found the program challenging and informative but complained that it was slow and crashed occasionally.

WordPerfect Main Street, *800-451-5151; Windows CD-ROM, $59.95.*

Space Adventure II

Overall: 75 (Fun: 7; Ease of Use: 7; Replay: 8; Education: 8)

Kids eight and up can listen to 400 narrated astronomical facts, identify constellations, watch space video clips, and get answers to questions like "How do we know how far away the stars are?" Testers were impressed by the wealth of information in the program, but they wanted it to be more fun and easier to use.

Knowledge Adventure, *800-542-4240 or 818-542-4200; Windows CD-ROM, $25 street.*

Zurk's Rainforest Lab

Overall: 74 (Fun: 7; Ease of Use: 8; Replay: 7; Education: 8)

Kids five to nine can learn about the rain forest and animal classification as they sharpen reading, writing, and math skills. Testers were impressed by the program's gorgeous graphics and pattern game, but they were disappointed by the limited number of activities and the 8-megabyte RAM requirement.

Soleil Software, *800-501-0110 or 415-494-0114; Mac and Windows CD-ROM, $38 street.*

Adventures with Oslo: Tools & Gadgets

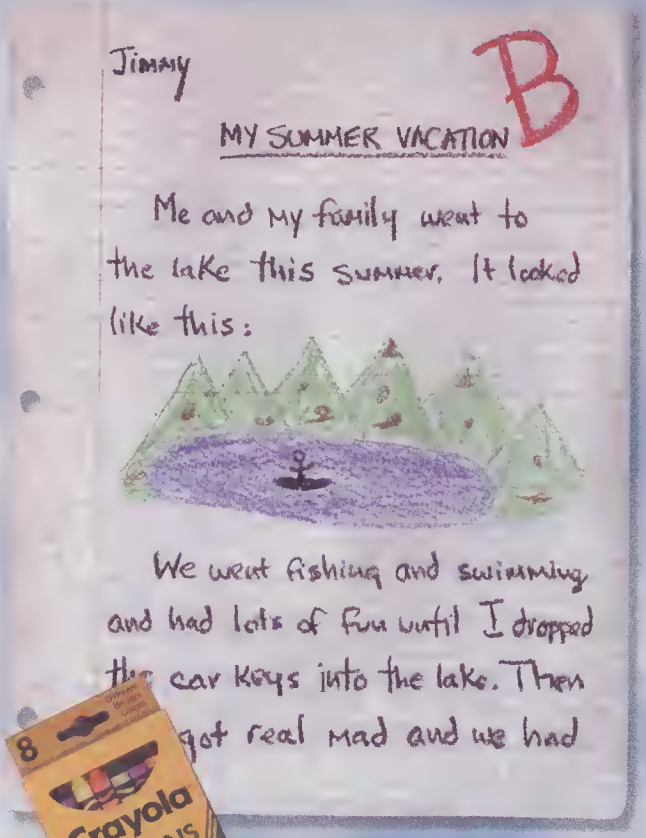
Overall: 64 (Fun: 7; Ease of Use: 8; Replay: 6; Education: 5)

Kids learn about six types of simple machines (such as a wheel and axle and a pulley) through five activities, including a storybook, an adventure game, and mazes. Testers found the program confusing to use and slow.

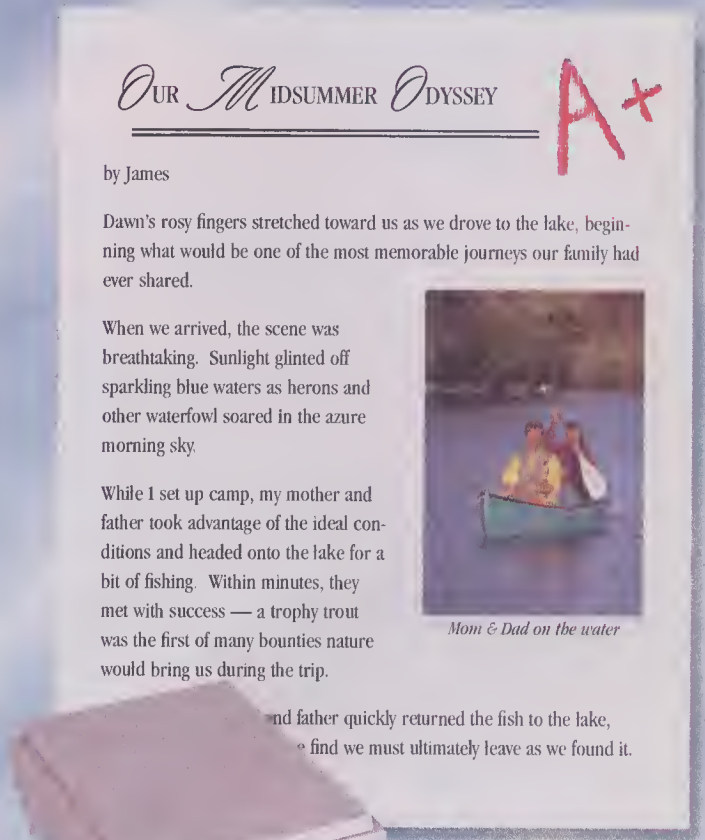
Science for Kids, *800-572-4362 or 910-945-9000; Mac and Windows CD-ROM, $59.95.* FPC

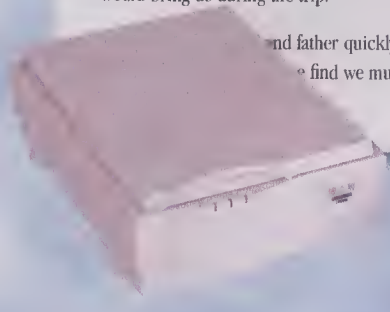
SCANNERS & SOFTWARE AT FACTORY-DIRECT PRICES

Does your kid have what it takes?



$4.29





$429

OK, so you grew up with crayons. And you turned out fine, right? But times have changed, and you know it.

So you bought your family a computer. Top of the line. Multimedia. The best.

The trouble is, a computer can't do much until you put something good into it. Words. Graphics. Vacation photos.

Envisions scanners make it easy to work with drawings and pictures. They're also great for turning printed text into words you can work with on screen.

In other words, they're just what it takes to get more out of your new PC.

Envisions is the leading source for scanners & software at factory-direct prices.

Our handscanner just won *Family PC*'s Best Value award. Our desktop scanners (including the 6200, above) offer features you won't even find at twice the price.

Envisions scanners come with everything you need (including cables and software) and are backed by a one-year warranty and a 30-day money back guarantee.

If you want to see your kids get more out of a computer, give them an Envisions scanner. Then stand back and prepare to be amazed.

FREE

*Get a special CD-ROM edition of Corel Draw 4 **FREE** when you place your order before June 30*

ENVISIONS SCANNER HOTLINE 800|365-SCAN

The Only Source for Envisions Scanners

© 1995 Envisions Solutions Technology, Inc., 822 Mahler Road, Burlingame, CA 94010. All rights reserved and trademarks acknowledged. Products and prices subject to change. This ad was created using an Envisions scanner.

ULTRA 14
0.39 MM DOT PITCH
1024 X 768 INTERLACED
ENERGY STAR
$219

ULTRA 14Ni
0.28 MM DOT PITCH
1024 X 768 @ 60Hz NI
MPR II & ENERGY STAR
$259

ULTRA 15
0.28 MM DOT PITCH FST
ON-SCREEN DISPLAY
DIGITAL CONTROLS INCL. COLOR
1024 X 768 @ 76Hz NI
MPR II & ENERGY STAR
$379

ULTRA 17
0.28 MM DOT PITCH FST
DIGITAL CONTROLS
1024 X 768 @ 76Hz NI
MPR II & ENERGY STAR
$659

Arlington Computer Products, Inc.
800-337-5105

CDW
800-915-4CDW

DELLWare
800-449-3355
CODE WMG95

Insight
800-249-9927

USA★FLEX
800-374-9901

THE PRICE SOUNDS LIKE A BARGAIN, BUT THE NAME CONFIRMS VALUE. THE ULTRA LINE FROM PRINCETON GRAPHIC SYSTEMS, RECOGNIZED FOR AWARD WINNING DISPLAYS, HAS REDEFINED THE VALUE MARKET WITH ENVIRONMENTALLY SOUND, PERFORMANCE PACKED MONITORS THAT DELIVER EXCEPTIONAL POWER IN A NO-NONSENSE DESIGN.

FROM THE SUPER VGA ULTRA 14, TO THE DIGITALLY CONTROLLED, MULTI-FREQUENCY ULTRA 17, EACH MODEL COMBINES THE FEATURES AND FUNCTIONALITY THAT YOU NEED WITH OUR UNRELENTING DEDICATION TO PERFORMANCE AND QUALITY. THE COMPLETE LINE IS ALSO SHIPPED WITH A WORRY-FREE, THREE-YEAR LIMITED WARRANTY AND KNOWLEDGEABLE TECHNICAL SUPPORT TO KEEP THE POWER ON.

WHEN YOU GET RIGHT DOWN TO IT, A MONITOR SIMPLY PROJECTS YOUR THOUGHTS AND IDEAS. BUT WHEN YOUR THOUGHTS AND IDEAS ARE ON DISPLAY WITH EXCEPTIONAL CLARITY AT A PRICE THAT MAKES PERFECT SENSE, WELL, YOU START MAKING PRETTY POWERFUL STATEMENTS.

PRINCETON®
GRAPHIC SYSTEMS

2801 SOUTH YALE STREET, SUITE 110, SANTA ANA, CA 92704 • TEL 1-714-751-8405 • FAX 1-714-751-5736 • 1-800-747-6249 TOLL-FREE

Best Ever The NEC XV17 earned the highest score of any FamilyTested product.

big Monitors For Family Systems

Adding a 17-inch monitor to your family computer is perhaps the most effective single upgrade you can perform

By Jon Pepper

When you bought your multimedia computer, you probably learned all you could about CPUs, RAM, and CD-ROM drives and paid little attention to the monitor that came with your system. If, as a result, you're stuck with a washed-out, headache-inducing display that makes computing more of a pain than a pleasure, you need a new monitor. To help you find one that meets your needs and budget, *FamilyPC* put a dozen 17-inch upgrade monitors through their paces and rated them on criteria important to your family.

No single addition to your home computer system will provide more obvious benefits, pleasure, and comfort for your family than a large-screen monitor. The display is the element that most directly affects your impression of your PC. If your system came with a 14-inch (most common) or 15-inch monitor, a high-quality 17-inch monitor will display more

Photographs by Lightworks Photographic

MONITOR IMAGES COURTESY OF COREL STOCK PHOTO LIBRARY

information on-screen, offer a sharper, clearer picture, and make using all your software — from games to CD applications to the family budget program — more enjoyable. It's much like moving up from a smaller television set to a larger, more modern one: you get to see more of what you want to see.

Picture This

Although going from 14 or 15 inches to 17 inches doesn't sound like much, it actually represents a world of difference. The larger size can provide your family with about thirty percent more picture-viewing area and make everything much more readable, too. A 17-inch monitor is perfectly suited for displaying software at a resolution of 1024 by 768 pixels without causing eyestrain, so you get about one-third more data on-screen compared to VGA (640- by 480-pixel) resolution. Because a higher resolution reduces the size of the text and icons on-screen, if you try this on a 14- or 15-inch monitor your family will be staring at some very tiny letters and icons, which can be both uncomfortable and unhealthy over a prolonged period.

Although monitors don't require much fussing, 17-inch monitors tend to provide plenty of controls. These extras include the capability to precisely adjust colors, fine-tuning for every aspect of the physical display, and even sleep modes that will save you money on the family electric bill.

What's Wrong with This Picture?

Seventeen-inch monitors do have some drawbacks. The most obvious are the extra size and weight. Most of the models we tested exceeded 40 pounds, and one weighed more than 50 pounds. And, of course, they are more expensive than smaller models, although prices are now more competitive than ever. Of the twelve tested monitors, three had average street prices under $700, and all but two (the NEC and Iiyama models) are available for less than $700 from numerous suppliers.

Other than that, our strongest warning is not to shop for a 17-inch display unless you're prepared to buy one. Once you see the difference, we guarantee you'll want to bring one home.

Ranking the Products

To find the best products for your family, we evaluated the twelve displays on several measures: ease of use, image quality, monitor features, warranty and support, and comparative value. Each product was ranked from 0 to 10 in each category, and the results were tabulated and weighted to produce our final rankings (see "How We Compute the Ratings").

The most important category for our testing was, not surprisingly, image quality. What's the point of buying a monitor if the image isn't as good as possible? Here, we used both subjective and objective tests. We did side-by-side comparisons of the displays, and we also used various diagnostic programs, including DisplayMate for Windows ($79; Sonera Technologies, 800-932-6323 or 908-747-6886). You can also use DisplayMate at home to help optimize your display.

Our twelve tested products were the NEC MultiSync XV17, Iiyama VisionMaster 17, Nokia Valuegraph 447L, CTX 1765GM, Mag InnoVision DX17F, Tatung CM17MKR, ViewSonic 17G, Magnavox MagnaScan/17 CM4018, Panasonic PanaSync C1791E, Optiquest 4000DC, Samsung SyncMaster 17GL, and Epson SVGA 17. The Magnavox monitor is the only one that comes with a Mac adapter.

All the monitors offered good-quality images — even the ones at the bottom of our ranking. However, three had simply outstanding image quality: the NEC, Nokia, and Iiyama. All were also relatively easy to adjust, with some offering conveniences like on-screen control menus.

The overall winner is the NEC MultiSync XV17, which scored 10s in all categories ex-

how we compute the ratings

To reach our final scores, *FamilyPC* tests and ranks each monitor according to the five criteria listed below. As in a boxing match, we use a "10-point must" system: for each criterion, at least one product must score a 10, and the other products' ratings are relative to that 10. Keep in mind that a 10 doesn't signify perfection; rather, it shows best of breed in a particular area.

1 **Ease of Use** (10% of score): For the most part, a monitor should simply be there: you turn it on and then focus on your software, not on your monitor. However, when adjustments are needed, the controls should be easy to access and convenient for children and adults. Pluses here include separate brightness and contrast knobs (the two main adjustments) and additional controls that are logical to use and understand.

2 **Image Quality** (40%): Image is everything — and then some — with monitors. The best monitors should provide images that are rock solid, with no flicker or ghosting. Text should be crisp and readable, and graphics should exhibit an even spread of accurate colors across the screen. We used both video diagnostic software and feedback from family testers to arrive at our quality ratings, but we gave a lot of weight to the opinions of our testers. The bottom line is that monitors have to look good to you and your family.

3 **Features** (10%): Our Top Rated products included items like on-screen controls, color matching or adjustment, power management software, Mac and PC support, and more. Every monitor covers the basics; some simply give you more for the money.

4 **Warranty and Support** (15%): A one-year warranty is the bare bones; your family should look for a two-year warranty and toll-free support. Top Rated products include peace-of-mind features like three-year warranties and rapid-exchange programs.

5 **Comparative Value** (25%): This factor is our rating of the overall value of a particular monitor. To arrive at a number, we total all the other criteria and divide by the *FamilyPC* Average Street Price (a price based on hundreds of anonymous inquiries to retailers nationwide). The final number gives us — and you — a method of weighing the combination of features, quality, and support for the money.

One note: monitors are the first hardware product we've tested for which we haven't included a ranking for out-of-box experience. Unlike computer systems, scanners, printers, and so on, the differences in out-of-box experience among monitors are negligible. You simply connect the monitor to your PC and turn it on.

cept comparative value. It delivers appealing features, a superb warranty and support program, and the best overall image quality. The Iiyama and Nokia monitors also deliver excellent picture quality and receive *FamilyPC* recommendations, as does the CTX 1765GM. In addition, the CTX and the Nokia garnered Best Buy awards for offering outstanding value to families.

Shopping Tips

When you're set to shop for a new monitor, you'll want to consider several issues. First, with monitors, seeing is believing. Don't buy a monitor without taking a good, close look at it. If you aren't happy with the way it looks in the store, you won't be happy at home. If you're buying via mail order, make sure you can get a refund or exchange if you don't like the picture quality. One tip: many vendors offer cost-effective upgrades to 17-inch monitors when you buy a new computer. Zeos, for example, will replace its

monitor talk

The nomenclature surrounding monitors can dull the attention of even the most astute family shopper. Following are some of the key terms you need to understand. It helps to learn the jargon before you shop.

Dot pitch: The spacing among phosphor dots, measured in millimeters. In general, the smaller the dot pitch, the sharper the image. Don't buy a monitor with a dot pitch larger than 0.28 mm.

Refresh rate: A measure of how quickly the screen is redrawn, measured in Hertz (Hz). This is a key; the higher the frequency, the more stable the image. Look for refresh rates of 72 to 76 Hz or higher at 1024- by 768-pixel resolution.

DPMS (Display Power Management Signalings): This describes a standard that lets your system power down your monitor after a period of inactivity. It is an energy-saving feature that most newer graphics cards support.

Pixel: An individual screen element and the measure of resolution. For example, 640- by 480-pixel resolution means a rendering of that number of pixels on-screen, horizontally by vertically. Look for support for at least 1024- by 768-pixel resolution in a 17-inch display.

Flat square: A type of picture tube that, despite the name, is neither flat nor square. It is, however, flatter than traditional CRTs and is considered to provide less screen distortion. This is a

SAVE 56%

OFF THE COVER PRICE

☑ YES! Please send a full year (10 issues) of **FamilyPC** and bill me just $12.95. I save 56% off the annual cover price.

NAME

ADDRESS APT#

CITY

STATE ZIP

CHILDREN'S BIRTHDATES (month/year)

I own or plan to buy: ☐ Macintosh ☐ IBM/PC-compatible ☐ Other

FamilyPC

In Canada, add $10.00 for postage and GST. Other foreign orders, add $10.00. Please allow 6 to 8 weeks for delivery. FamilyPC's annual newsstand price is $29.50. © FamilyPC JFN1AAB

information on-screen, offer a sharper, clearer picture, and make using all your software — from games to CD applications to the family budget program — more enjoyable. It's much like moving up from a smaller television set to a larger, more modern one: you get to see more of what you want to see.

Picture This

Although going from 14 or 15 inches to 17 inches doesn't sound like much, it actually represents a world of difference. The larger size can provide your family with about thirty percent more picture-viewing area and make everything much more readable, too. A 17-inch monitor is perfectly suited for displaying software at a resolution of 1024 by 768 pixels without causing eyestrain, so you get about one-third more data on-screen compared to VGA (640- by 480-pixel) resolution. Because a higher resolution reduces the size of the text and icons on-screen, if you try this on a 14- or 15-inch monitor your family will be staring at some very tiny letters and icons, which can be both uncomfortable and unhealthy over a prolonged period.

Although monitors don't require much fussing, 17-inch monitors tend to provide plenty of controls. These extras include the capability to precisely adjust colors, fine-tuning for every aspect of the physical display, and even sleep modes that will save you money on the family electric bill.

What's Wrong with This Picture?

Seventeen-inch monitors do have some drawbacks. The most obvious are the extra size and weight. Most of the models we tested exceeded 40 pounds, and one weighed more than 50 pounds. And, of course, they are more expensive than smaller models, although prices are now more competitive than ever. Of the twelve tested monitors, three had average street prices under $700, and all but two (the NEC and Iiyama models) are available for less than $700 from numerous suppliers.

Other than that, our strongest warning is not to shop for a 17-inch display unless you're prepared to buy one. Once you see the difference, we guarantee you'll want to bring one home.

Ranking the Products

To find the best products for your family, we evaluated the twelve displays on several measures: ease of use, image quality, monitor features, warranty and support, and comparative value. Each product was ranked from 0 to 10 in each category, and the results were tabulated and weighted to pro-

how we compute the ratings

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 8631 DES MOINES IA
POSTAGE WILL BE PAID BY ADDRESSEE

FamilyPC
PO BOX 400451
DES MOINES IA 50347-0451

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

FamilyPC

56% OFF the Cover Price

When You Act Now.

We believe *your* family will give FamilyPC a seal of approval. That's why we offer a 100% Full Moneyback Guarantee. You may cancel at any time for any reason and get every penny back — *plus* you keep all issues received.

So return the attached card today to get big savings and a full moneyback guarantee on your family's favorite computer magazine.

cept comparative value. It delivers appealing features, a superb warranty and support program, and the best overall image quality. The Iiyama and Nokia monitors also deliver excellent picture quality and receive *FamilyPC* recommendations, as does the CTX 1765GM. In addition, the CTX and the Nokia garnered Best Buy awards for offering outstanding value to families.

Shopping Tips

When you're set to shop for a new monitor, you'll want to consider several issues. First, with monitors, seeing is believing. Don't buy a monitor without taking a good, close look at it. If you aren't happy with the way it looks in the store, you won't be happy at home. If you're buying via mail order, make sure you can get a refund or exchange if you don't like the picture quality. One tip: many vendors offer cost-effective upgrades to 17-inch monitors when you buy a new computer. Zeos, for example, will replace its standard 14-inch monitor with a 17-inch model for under $500.

Make sure the monitor matches your computer type (PC or Mac) and comes with all appropriate connection cables. This is especially relevant for families with Macs, because many monitors require an optional cable to connect to a Mac.

Next, bear in mind that the monitor is only half the story. Your video graphics card is the other half. The graphics card must be capable of producing the resolutions and refresh rates your monitor supports. Most recent video cards should present no problem, but call your dealer if you have questions about your card's capabilities.

As for features, don't buy a 17-inch monitor that won't support at least 1024- by 768-pixel resolution, which is sometimes referred to as SVGA or SuperVGA resolution (all of our tested products provide at least this support). However, resolution alone isn't a mark of quality. To get the most stable image, you also need a monitor with a vertical refresh rate of 70 Hz or higher at 1024 by 768 pixels. Also, check for a dot pitch of 0.28 millimeter or smaller. Anything larger can mean a grainy image with a 17-inch display.

Monitors, like television sets, produce potentially hazardous ELF (extra low frequency) and VLF (very low frequency) emissions. Although debate exists as to the degree of hazard, don't buy a product that doesn't meet the Swedish government's stringent MPR II specification. (This is another reason to consider upgrading if you have an older monitor.) One practical tip: because emissions dissipate quickly over distance, the generally accepted rule of thumb is to sit at least 24 inches (or an arm's length) from your monitor for safety.

Finally, monitors can be more delicate than other parts of your PC, and, as with a television set, the picture tubes can be damaged in shipping and handling. If everything is hooked up correctly but the screen image seems seriously off to you, call your dealer. You could have a defective monitor that needs replacement.

Other than shipping mishaps, however, hooking up a new 17-inch display is an easy task that will give your family a more appealing view of all your computing tasks. FPC

Jon Pepper *is a* FamilyPC *contributing editor and lives in Massachusetts.*

monitor talk

The nomenclature surrounding monitors can dull the attention of even the most astute family shopper. Following are some of the key terms you need to understand. It helps to learn the jargon before you shop.

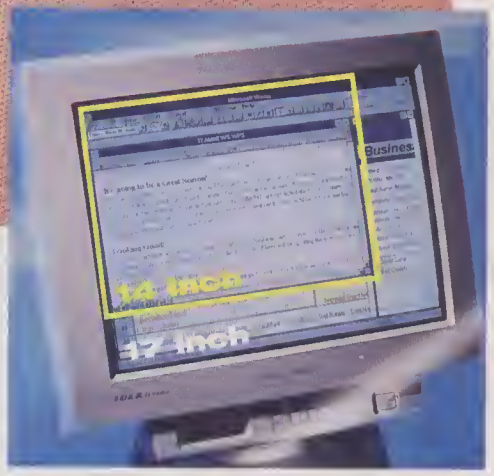
Dot pitch: The spacing among phosphor dots, measured in millimeters. In general, the smaller the dot pitch, the sharper the image. Don't buy a monitor with a dot pitch larger than 0.28 mm.

Refresh rate: A measure of how quickly the screen is redrawn, measured in Hertz (Hz). This is a key; the higher the frequency, the more stable the image. Look for refresh rates of 72 to 76 Hz or higher at 1024- by 768-pixel resolution.

DPMS (Display Power Management Signalings): This describes a standard that lets your system power down your monitor after a period of inactivity. It is an energy-saving feature that most newer graphics cards support.

Pixel: An individual screen element and the measure of resolution. For example, 640- by 480-pixel resolution means a rendering of that number of pixels on-screen, horizontally by vertically. Look for support for at least 1024- by 768-pixel resolution in a 17-inch display.

Flat square: A type of picture tube that, despite the name, is neither flat nor square. It is, however, flatter than traditional CRTs and is considered to provide less screen distortion. This is a nice but nonessential feature.



Elbow Room If you're constantly losing windows under other windows, you'll like the real estate of a 17-inch monitor.

what the scores mean

100–95
Nearly flawless; ***FamilyPC*** Recommended; why look elsewhere?

94–85
Excellent; ***FamilyPC*** Recommended; won't let you down.

84–75
May feature special capabilities you want that eclipse its shortcomings.

74–65
Needs work; flawed in more than one area; caveat emptor.

64 and under
Several major flaws.

Products that score 85 and above are ***FamilyPC*** Recommended. The product receiving the best score gets the Top Rated award, while products earning a 10 in comparative value are designated Best Buys.

For PCs or Macs

NEC MultiSync XV17

Outstanding image quality, plenty of great features, and a superb warranty set the XV17 apart

Ease of Use.....10
Image Quality.....10
Features.....10
Warranty and Support..10
Comparative Value.....9

$831
(*estimated street price*)

Basic Specifications:
0.28-mm dot pitch, 76-Hz refresh at 1024 by 768 pixels, 3-year parts-and-labor warranty

NEC Technologies
1255 Michael Drive
Wood Dale, IL 60191
800-632-4636

PROS
Great image quality, superb controls, excellent support

CONS
Slightly more expensive; optional monitor lens ($69) helps increase contrast

PART OF NEC's new value line, the MultiSync XV17 brings the image quality of NEC's professional line of monitors to the home market while leaving out almost nothing of significance.

With its 76-Hz refresh rate (at 1024- by 768-pixel resolution), flat-square tube technology, and high-contrast screen, the XV17 renders rock-solid and crystal-clear images. Whether it was displaying pages of text or full-color photographic images, our family testers were impressed with this monitor's clarity, detail, and color accuracy. The display also has minimal geometric distortion.

But good-looking images are only part of this monitor's appeal. NEC's on-screen manager (OSM) lets you adjust any monitor function — screen size and position, screen geometry, and more — with easy-to-follow menus. Simply push a front-mounted button, and the OSM pops up on the monitor. Animated icons show, in your choice of six languages, how the adjustments affect the image. While other vendors offered on-screen controls, none had the panache of the NEC system's.

If you want to make color adjustments, the OSM also provides direct access to NEC's AccuColor color adjustment system. You can quickly and easily tune the screen colors to your liking or to match, say, the red of a printed sample.

There are plenty of other features to recommend, too, including compatibility with the Microsoft Windows 95 Plug-and-Play standard. The XV17 was the only tested monitor that had this feature, which will help to automatically optimize display performance if you use Windows 95 with your family PC.

Image Master In earning Top Rated honors, the NEC MultiSync XV17 compiled the highest score of any product we've family-tested.

We were also impressed with the warranty and support NEC provides, including three years of full parts and labor on the monitor, toll-free support, and a 24-hour-a-day fax-back line for technical help. Another plus: if you're a Macintosh user, you can call a toll-free number and NEC will send you free resolution-switching software and an adapter for connecting the XV17 to your system.

The XV17 also meets all the latest ergonomic standards for both energy efficiency and low emissions, including EPA Energy Star, NUTEK, and Swedish MPR II guidelines. It should be no surprise, then, that the XV17 scored a 10 on image quality and for every other category except comparative value, where it dipped to a 9.

With its great picture quality, advanced features, and top-notch support, the NEC MultiSync XV17 is a superb monitor that offers professional quality at family-oriented prices. Your family simply can't get more monitor for the money. No hardware product has ever scored higher in our family testing. If you're in the market for a 17-inch monitor, we highly recommend the XV17.

the Pagemaster™

MACINTOSH VERSION NOW AVAILABLE

THE THRILLING CD-ROM GAME THAT'S A CONTINUATION OF THE MOVIE!

First do your homework, then battle a dragon or two!

With **The Pagemaster™ CD-ROM game**, the adventure continues where the smash hit film leaves off! This dazzling, state-of-the-art game lets your kids use their imaginations to create a new, astounding, and totally awesome experience every time they play! **The Pagemaster™ CD-ROM game– Continue the Adventure!**

TURNER INTERACTIVE

© 1994 Turner Publishing Inc. All Rights Reserved. Technical Portions © 1994 Mammoth Micro Productions, Inc. All Rights Reserved.
"The Pagemaster" Motion Picture © 1994 Twentieth Century Fox Film Corporation and Turner Pictures, Inc. All Rights Reserved.
"The Pagemaster" and related characters are trademarks of Twentieth Century Fox Film Corporation.

TURNER HOME ENTERTAINMENT

Ease of Use.....9
Image Quality.....10
Features.....9
Warranty and Support..10
Comparative Value.....9

$822
(*Average Street Price*)

Basic Specifications
0.26-mm dot pitch, 105-Hz refresh at 1024 by 768 pixels, 3-year parts-and-labor warranty

Iiyama North America
650 Louis Drive, Suite 120
Warminster, PA 18974
800-394-4335 or
215-957-6543

PROS
Top-of-the-line image quality, very high refresh rate, comprehensive warranty

CONS
Expensive, no on-screen controls

For PCs or Macs

Iiyama VisionMaster 17

A great picture, generous support, and plenty of extras make the VisionMaster 17 a top performer

OUR SECOND-highest-rated monitor, Iiyama's VisionMaster 17, also happens to be the second-highest-rated FamilyTested Hardware product we've ever tested. The VisionMaster is packed with features that should make it a hit with any family: superb image quality, straightforward controls, and a warranty as comprehensive as that of any tested monitor. It scored a 10 for its image quality and for warranty and support, and 9s in every other category.

The VisionMaster had a combination of display features matched by no other monitor in our tested group, including a super-tight 0.26-mm dot pitch and an incredibly fast 105-Hz vertical refresh rate at 1024- by 768-pixel resolution. This blend of performance features gave the VisionMaster a picture quality that didn't have to take a backseat to any other monitor's: rich colors, crisp and stable images, and pleasing detail for both text and graphics. Whether you have a Mac or a PC, a move up to the VisionMaster is likely to treat your family to much more lifelike color than you get with your current monitor.

Unshakable Confidence The Iiyama VisionMaster's outstanding refresh rates ensure a top-quality display.

Although the VisionMaster lacked the on-screen controls of many of the other tested monitors, its digital controls were still understandable and approachable for both adults and youngsters. Iiyama uses a front-mounted LCD panel with a simple three-button combination: menu, plus, and minus. When you push the menu button, the adjustment items appear on the LCD and can then be modified with the plus and minus buttons. Our one quibble with this system is the lack of independent contrast and brightness knobs, which most other monitors had. Separate knobs are a plus because brightness and contrast are the most-often-used controls.

The VisionMaster offers free Colorific color management software, making it one of the few systems that provided comprehensive color management beyond simple color temperature selections. The Colorific software lets you precisely calibrate the monitor to any color output device. It may be more than most families need, but it indicates the professional quality of the Iiyama product.

We strongly believe that products for families should have extensive warranties, and the VisionMaster excels in this respect. The basic warranty includes three years for parts and labor and toll-free support, which matches the warranties NEC and Nokia offer. Iiyama also offers an optional program called VisionCare, which guarantees a replacement monitor within 48 hours for just $49 during the entire warranty period.

The Iiyama VisionMaster 17 is one of the more expensive products we tested, although we did find it priced as low as $745. At that price, it represents fine value for your family. It may lack a few of the more advanced features of the NEC monitor, but for pure image quality and performance, the VisionMaster is as good as any product we tested.

What could you say better with a photo?

4 *Wow! What a great letter! It has personality, visual impact and pizazz!*

3 *With an easy-to-understand interface, EasyPhoto is the **only** easy way!*

2 *EasyPhoto lets you add photos quickly and easily.*

1 *Here's a typical letter. Nice, but nothing memorable.*

Imagine the possibilities! Add photos to labels, letters, flyers, school reports, thank you notes, newsletters, invitations, insurance lists, and more! EasyPhoto is the ***only*** easy way to express yourself with photos. With EasyPhoto and your PC it's easy to: ▪ Find your photos with the Photo Gallery ▪ Enhance them in the Photo Workshop ▪ Drag & drop into documents ▪ Print with EasyPhoto's ClearPrint™ and see the amazing results ▪ All you need is a CD-ROM drive and Windows. That's it.

See your retailer or call 1.800.787.2983 to order your copy of EasyPhoto for $49 or the EasyPhoto Reader for $249. Not sure? Call for your free multimedia demo CD.

EasyPhoto

Express yourself with photos!™

STORM SOFTWARE

For PCs or Macs

Nokia Valuegraph 447L

A sharp picture, a great design, and audio options add to the Valuegraph's appeal and value

Ease of Use.....8
Image Quality.....9
Features.....9
Warranty and Support..10
Comparative Value.....10

$700
(*Average Street Price*)

Basic Specifications
0.28-mm dot pitch, 75-Hz refresh at 1024 by 768 pixels, 3-year parts-and-labor warranty

Nokia Display Products
1505 Bridgeway Blvd.
Sausalito, CA 94965
800-296-6542 or
415-331-6622

NOKIA'S VALUEGRAPH 447L earned a third-place finish by virtue of its well-thought-out mixture of image quality, features, and pure value. This value put the monitor in a dead heat with the CTX 1765GM for our Best Buy award.

Nokia is unique in offering its product in a choice of colored cases, including red, blue, green, charcoal, and beige. But the Valuegraph proved to be far more than a cosmetic hit. With its 0.28-mm dot pitch and 75-MHz refresh rate, the Valuegraph delivered good image quality over our entire range of tests. It was also unique in including two small speakers, mounted invisibly under the front bezel, along with an integrated amplifier and headphone connector.

We liked the Nokia control system, too, with an array of buttons mounted on the front bezel. The Valuegraph has independent controls for every single function, rather than a menuing system.

The Valuegraph has a couple of minor limitations. First, its maximum resolution is 1024 by 768 pixels; all the other monitors we tested supported at least 1280 by 1024 pixels, albeit at relatively low refresh rates. And the Valuegraph doesn't have any sort of color matching or adjustment. Still, these are minor points in a product that is otherwise outstanding.

Sounds Good, Too The Valuegraph's speakers are an added bonus.

17-inch monitors at a glance

Manufacturer	NEC	Iiyama	Nokia	CTX	Mag InnoVision
Product name	MultiSync XV17	VisionMaster 17	Valuegraph 447L	1765GM	DX17F
For Mac	Yes (adapter is free)	Yes	Yes	Yes	Yes
For PC	Yes	Yes	Yes	Yes	Yes
Average Street Price	$831	$822	$700	$642	$654
Dot pitch (mm)	0.28	0.26	0.28	0.27	0.26
Max. refresh (Hz) at 1024×768 pixels	76	105	75	75	76
Max. resolution	1280×1024, 60 Hz	1280×1024, 80 Hz	1024×768, 75 Hz	1280×1024, 60 Hz	1280×1024, 60 Hz
On-screen controls	Yes	No (LCD panel)	No	No	No
Color matching	Yes (optional sw)	Yes	No	Color temperature only	No
Power management	Yes (optional sw)	Yes	Yes	Yes	Yes (VESA/Energy Star)
Weight (lb.)	48.4	46.2	44	46.2	50.6
Toll-free support	Yes (8–8)	Yes	Yes	Yes	Yes
Warranty	3 years	3 years	3 years	3 years	3 years parts; 1 year labor; 2 years CRT

For PCs or Macs

CTX 1765GM

Solid performance in every area makes this monitor a Best Buy

Ease of Use.....9
Image Quality.....8
Features.....8
Warranty and Support...9
Comparative Value.....10

$642
(Average Street Price)

Basic Specifications
0.27-mm dot pitch, 75-Hz refresh at 1024 by 768 pixels, 3-year parts-and-labor warranty

CTX International
20530 Earlgate Street
Walnut, CA 91789
800-888-2012 or
909-598-8094

The CTX 1765GM wasn't the best monitor in any category, but it scored 8s and 9s on every testing criterion and was the least expensive tested product. That put the CTX into a tie with the Nokia monitor for our Best Buy award.

If your family is on a tight budget, this is a fine monitor to consider. At prices that dipped as low as $580, the CTX 1765GM is the least expensive way we found for your family to get a quality 17-inch display. Though it didn't have the sharpest picture, we were generally pleased with its image quality. And with a 0.27-mm dot pitch and 75-Hz refresh rate, the CTX scored higher than some more expensive monitors.

The CTX lacks a few of the bells and whistles of some of the more expensive products, but it still manages to hold its own in features. For instance, we liked the nifty drop-down digital control panel that keeps less-used controls out of sight — and touch — of young users. Brightness and contrast knobs, which are used on a more regular basis, are conveniently situated under the front bezel.

Even though the CTX is a relative bargain, it provides a good range of color controls in addition to screen geometry adjustments. And it includes compatibility with the VESA DPMS, which saves you money by putting the monitor into a sleep mode when there's no system activity.

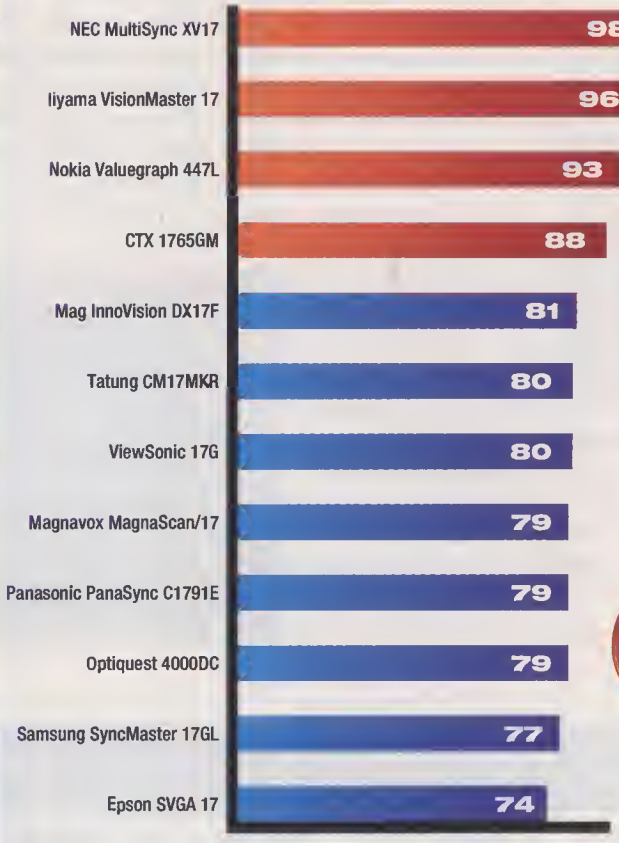
Budget-Conscious Quality The CTX's combination of quality and low price is second to none.

Tatung	ViewSonic	Magnavox	Panasonic	Optiquest	Samsung	Epson
CM17MKR	17G	MagnaScan/17 CM4018	PanaSync C1791E	4000DC	SyncMaster 17GL	SVGA 17
Yes	Yes	Yes (includes adapter)	Yes	Yes	Yes	No
Yes	Yes	Yes	Yes	Yes	Yes	Yes
$769	$776	$707	$738	$740	$728	$680
0.26	0.28	0.28	0.28	0.27	0.28	0.28
76	80	75	79	80	87	70
1600×1200, 60 Hz	1280×1024, 60 Hz	1280×1024, 60 Hz	1280×1024, 60 Hz	1280×1024, 60 Hz	1280×1024, 60 Hz	1280×1024, 60 Hz
No	Yes	Yes	Yes	Yes	Yes	No
No	Color temperature only	Color temperature only	Color temperature only	Yes	No	No
Yes	Yes	Yes	Yes	Yes (sw included)	Yes	Yes
47.3	37.7	40.7	36.4	41.7	46.3	45.1
Yes	Yes	Yes	Yes	Yes	Yes (9–9)	Yes
2 years	3 years parts; 1 year labor	3 years parts; 1 year labor	1 year	3 years parts; 1 year labor	2 years	1 year

Up to now, no hardware product had scored above a 94 in a *FamilyPC* FamilyTested Hardware roundup. So having two — the NEC MultiSync XV17 and the Iiyama VisionMaster 17 — beat that score in the same month is a testimony to the quality of these fine monitors. Also unusual this month is a tie for Best Buy, with the Nokia Valuegraph 447L and the CTX 1765GM both receiving a 10 in the comparative value category. You won't go wrong with any of these four *FamilyPC* Recommended 17-inch monitors.

Big Picture The Iiyama VisionMaster 17, Nokia Valuegraph 447L, and CTX 1765GM bring quality 17-inch displays within reach of family budgets.

overall score



Top Dog The NEC XV17 is simply the best monitor we tested.

FAMILY SHOPPER

EASTER EGG HUNT

Who said computer programmers don't have a sense of humor? Inside the Windows and Macintosh operating systems—and buried within many programs — you'll find *Easter eggs*, little "goodies" hidden there by the people who wrote the software. Don't know where to look? We'll help you get started.

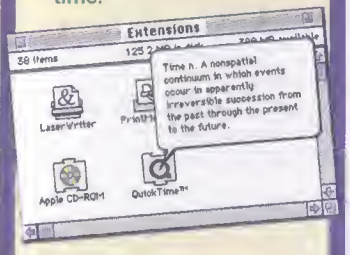
Macintosh

Monitors Control Panel

- Open the Monitors Control Panel in System 7 (or later).
- Click on the version number — a list of the programmers appears.
- Hold down the mouse button and press the Option key — the smiley face sticks out its tongue.

QuickTime

- Select Show Balloons from the Balloon Help menu.
- Put the cursor over the QuickTime file (it's in the System folder, buried in the Extensions folder) to uncover the definition of time.



Sound Control Panel

- Open the Sound Control Panel (it's in the Control Panel folder under the Apple menu or inside the System folder).
- Press the Option key while selecting any of the four items from the pop-down menu — you'll hear a roaring sound as the programmers' names appear.

see back ➤

FAMILY SHOPPER **SMART Card**

Your Guide to Buying Multimedia Systems

Minimum recommended specifications

Speed: For DOS/Windows PCs, a 66-MHz 486DX2 CPU; for Macs, a 25-MHz Motorola 68040 CPU
Hard drive capacity: 500MB
RAM: 8MB
CD-ROM drive: Double-speed, MPC2, multisession Photo CD–ready
Sound card: 16-bit Sound Blaster–compatible (Macs have built-in sound capabilities)
Monitor: 14-inch, 256-color SVGA
Modem: 14.4-kbps data/14.4-kbps fax with communications software
Software bundle: One integrated package, home finance, CD-ROM encyclopedia, games
Price: $2000 minimum for quality system, $2400 for a Pentium system or Power Mac

FAMILY SHOPPER **SMART Card**

Your Guide to Buying a 17-inch Monitor

Minimum recommended specifications

Refresh/Resolution: Capable of 70-Hz refresh rate at 1024 by 768 pixels
Dot pitch: 0.28 mm or smaller
Controls: Digital controls, preferably with on-screen help
Price: $850 maximum
Warranty: 2 years

Don't forget:

- Place all speakers and disks away from your monitor
- Make sure you have enough desk space for a larger monitor

FAMILY SHOPPER **SMART Card**

Know Your System — Buying Software That's Right for Your PC

Fill out the following information about your computer system and take this card with you when shopping for software.

DOS/Windows System

CPU ❑ 386SX or DX ❑ 486SX or DX ❑ 486DX2 ❑ DX4 ❑ Pentium
Clock speed ❑ 16 MHz ❑ 20 MHz ❑ 25 MHz ❑ 33 MHz ❑ 50 MHz ❑ 60 MHz ❑ 66 MHz ❑ 90 MHz ❑ 100 MHz ❑ 120 MHz
Operating system ❑ DOS pre-5.0 ❑ DOS post-5.0 ❑ Windows 3.0 ❑ Windows 3.1 ❑ OS/2 Warp

Apple Macintosh System

CPU ❑ 68020 ❑ 68030 ❑ 68040 ❑ PowerPC
Clock speed ❑ 16 MHz ❑ 25 MHz ❑ 33 MHz ❑ 60 MHz ❑ 80 MHz
Operating system ❑ pre–System 7.0 ❑ System 7.0 ❑ System 7.1 ❑ System 7.5

Other

Hard disk space available _____(MB)
Total RAM available _____(MB)
Sound card _____
Graphics card _____
CD-ROM drive ❑ single-speed ❑ double-speed ❑ quad-speed
❑ External speakers/headphones
❑ Microphone
❑ Joystick

FamilyPC's Recommended Multimedia PCs

System	Street Price[1]	CPU	RAM	Hard Drive	Overall Score
Gateway 2000 P5-75 Family PC*	$2349	75-MHz Pentium	8MB	730MB	88
MacIntosh Performa 6118CD*	$2850[2]	60-MHz PowerPC 601	8MB	500MB	86
Compaq Presario CDS 972†	$2149	75-MHz Pentium	8MB	725MB	85
AST Advantage Adventure 8090p*	$3047	90-MHz Pentium	8MB	540MB[3]	85
AcerAcros P5 Minitower*	$2700	75-MHz Pentium	8MB	810MB	85
Micron P90 Home PC*	$2568	90-MHz Pentium	8MB	540MB	84

*In May 1995 issue †In this issue [1]As of press time [2]Apple price [3]Now ships with a 1GB hard drive

FamilyTested 17-inch Monitors in This Issue

Monitor	Street Price	Refresh Rate*	Dot Pitch	Overall Score
NEC MultiSync XV17	$831	76 Hz	0.28 mm	98
Iiyama VisionMaster 17	$822	105 Hz	0.26 mm	96
Nokia Valuegraph 447L	$700	75 Hz	0.28 mm	93
CTX 1765GM	$642	75 Hz	0.27 mm	88
Mag InnoVision DX17F	$654	76 Hz	0.26 mm	81
Tatung CM17MKR	$769	76 Hz	0.26 mm	80
ViewSonic 17G	$776	80 Hz	0.28 mm	80
Magnavox MagnaScan/17	$707	75 Hz	0.28 mm	79
Panasonic PanaSync C1791E	$738	79 Hz	0.28 mm	79
Optiquest 4000DC	$740	80 Hz	0.27 mm	79
Samsung SyncMaster 17GL	$728	87 Hz	0.28 mm	77
Epson SVGA 17	$680	70 Hz	0.28 mm	74

*At 1024 by 786 pixels

Scores over 85 are recommended

Recommended FamilyTested Software in This Issue

Software	Price	Age	Overall
Kid Pix Studio Brøderbund	$45 (street)	3–12	91
The Magic School Bus Explores the Solar System Microsoft	$49.95	6–10	90
Ozzie's World Digital Impact	$39.95	3–8	87
What's the Secret? 3M Learning Software	$59.95	8–12	87
Imagination Express Edmark	$35	6 –12	86
Widget Workshop Maxis	$44.95 (street)	8 and up	85
Aladdin Activity Corner Disney Interactive	$30 (street)	5–12	85
Thinkin' Things Collection 2 Edmark	$40	6–12	85

EASTER EGG HUNT

Windows

Windows 3.1

- Hold down Ctrl and Shift (and keep holding them down).
- Select **About Program Manager** from the Program Manager's Help menu.
- Double-click inside one of the four panes of the Windows logo at the upper left.
- Click on OK.
- Repeat those steps — you'll see a small flag waving.
- Repeat the steps again — credits roll, and one of four characters appears at the left. One of them is a teddy bear; another looks suspiciously like Bill Gates.

Quicken for Windows 3.0 and 4.0

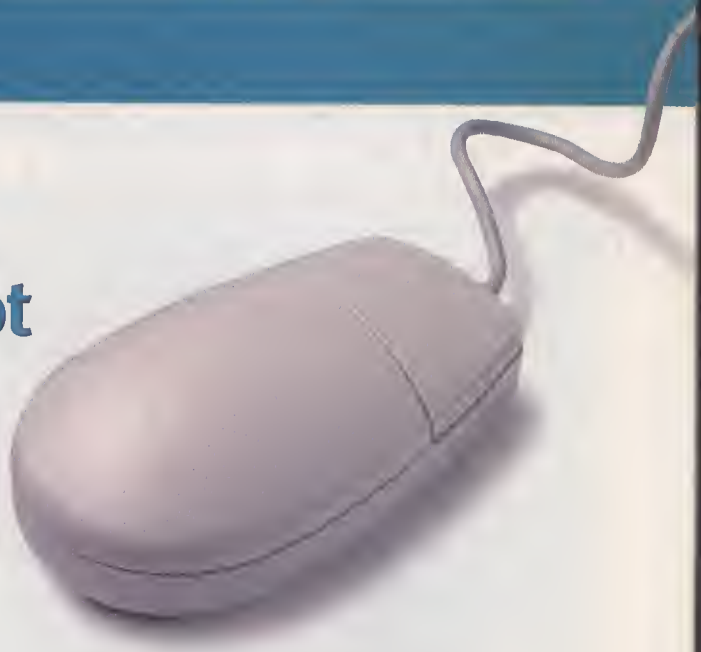
- Hold down the *R* or *S* key.
- Select **About Quicken** from the Help menu — a tiny snake slithers across the screen (*R* key) or a windsurfer does a flip (*S* key).

Microsoft Word for Windows 2.0

- Select **Macros** from the Tools menu.
- In the Macro Name field, type **spiff**.
- Click on the Edit button.
- Delete the lines **Sub MAIN** and **End Sub**, so that there's only one blank line remaining.
- Choose **Close** from the File menu and click on Yes in the next dialog box.
- Pick **About** from the Help menu.
- Click on the Word icon at the upper left — little men appear, a green dragon pops up, and when the battle's over, the people jump up and down.

MAC|WIN CD-ROM

Kids can learn a lot from one mouse.



Just think how much more fun it would be with seven.

Book your kids passage on the good ship Barleycorn for the enchanting, interactive pirate adventure of The Treasure Hunt. Beautifully illustrated in traditional style animation, the story unfolds through 15 problem solving puzzles and games suitable for four to nine year olds.

An elusive stowaway aboard and original painting activities add further interest as Captain Mouse and his merry crew follow the secret map in search of buried treasure. There's even a bedtime mode that re-tells the story while your little crew member falls asleep in their bunk. Magical.

To order or for more information telephone 1 800 922 SONY.

SONY IMAGESOFT

DOWNLOAD THE DEMO OF THE TREASURE HUNT FROM THE SOFTWARE LIBRARIES OF HOME PC ON AMERICA ONLINE. KEYWORD: HOMEPC.

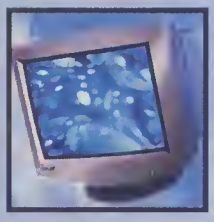
American distribution: Sony ImageSoft, One Lower Ragsdale Drive, Suite 160, Monterey CA 93940.

rest of the pack

Mag InnoVision DX17F

Score: 81

The best thing about the DX17F is the sharp picture, thanks in part to a fast 76-Hz refresh rate and a tight 0.26-mm dot pitch. The picture quality was impressive, though not up to that of the NEC or Iiyama. But the Mag wasn't as feature-rich as the NEC, and it was a behemoth (at over 50 pounds). Improvements in these areas would make this otherwise value-priced monitor a true value.

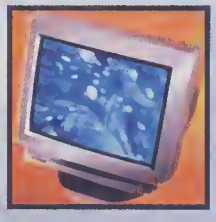


(Mag InnoVision, 800-827-3998 or 714-751-2008)

Tatung CM17MKR

Score: 80

The Tatung CM17MKR uses a picture tube manufactured by NEC, and the quality shows. It has a 0.26-mm dot pitch and resolution up to 1600 by 1200 pixels (the highest of our test group), and we were generally pleased with its image quality. Other notable features include easy-to-use digital controls, an antiglare screen, and good color accuracy. Unfortunately, the Tatung is also one of the more expensive products we tested, and it lacks the extra features (e.g., color matching and extended warranty) that our Top Rated product had. Despite the good picture, your family can probably find a better overall value.

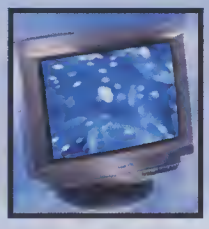


(Tatung, 800-829-2850 or 310-637-2105)

ViewSonic 17G

Score: 80

The ViewSonic 17G has well-arrayed front-panel controls with on-screen programming, PC and Mac compatibility, and a reasonably sharp picture. Other nice touches include DPMS compatibility and a flat-square screen. Despite these pluses, the ViewSonic was relatively pricey, so while it scored 8s in every category, its overall value ranked just below our top products. We liked the ViewSonic; we'd like it more at a lower price.

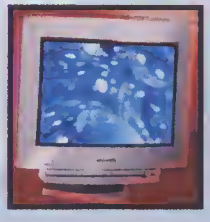


(ViewSonic, 800-888-8583 or 909-869-7976)

Magnavox MagnaScan/17 (CM4018)

Score: 79

The MagnaScan/17 didn't stand out in any one category. Rather, it provided good performance in all categories and was one of the least expensive products we tested, with an Average Street Price of about $707 (we found it for as little as $659). It uses an on-screen control system for adjustments, although we found their implementation to be far less elegant than the on-screen system the Top Rated NEC used. To its credit, though, Magnavox does provide separate brightness and contrast controls and offers some degree of color adjustment.



(Phillips, 800-835-3506 or 615-521-4316)

Panasonic PanaSync C1791E

Score: 79

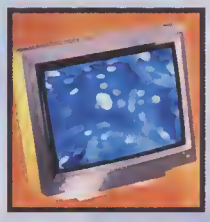
The PanaSync C1791E features on-screen programming, solid display quality with an antireflective dark-tinted surface, and compatibility with both Macs and PCs. In fact, the Panasonic is very much on a par with the almost identical ViewSonic. What it doesn't have is an extensive warranty and a low enough price. Here again, a better warranty and a lower price would make this a better family product.

(Panasonic, 800-742-8086)

Optiquest 4000DC

Score: 79

The Optiquest 4000DC has a lot we like: good image quality, on-screen controls, good color adjustment, and a compact, lightweight design. On the down side, it's no longer the bargain it once was. This is a good monitor that we enjoyed using; it simply didn't have enough value to break into the winner's circle.



(Optiquest, 800-843-6784 or 909-468-3750)

Samsung SyncMaster 17GL

Score: 77

The best feature on the 17 GL may be the warranty: two years parts and labor and toll-free technical support. Beyond that, the Samsung offers on-screen controls, a stable if unexceptional image, and a price that tended toward the higher end of the spectrum. For an Average Street Price of $728 we expected more, and so should your family. Spend more and get the higher-rated NEC, or spend considerably less and get the Best Buy CTX.

(Samsung, 800-726-7864)

Epson SVGA 17

Score: 74

Epson's SVGA 17 is a no-frills display with decent image quality, though it was obviously not in the same league as our winners. The Epson has toll-free customer support and a full set of adjustments, but it lacks niceties like on-screen controls and support for Macs. If you can find the Epson for under $600, it's a bargain. Otherwise, if image is everything, the Epson is still looking.

(Epson America, 800-289-3776 or 310-782-0770)

The Ultimate Windows® Pointing Device
Ten Times Better than a Mouse!

Introducing the All New $129.00 ACECAT II®

Advanced Cursor Control Including:

- Superior Absolute Positioning Technology
- Easier Pointing & Clicking
- Better Ergonomics
- Powerful Tracing and Mapping In Capability
- Natural Freehand Sketching in Graphics
- Precision Digitizing for CAD
- More Customization Choices
- Faster Drag And Drop
- Convenient Signing of your Paperless Faxes
- Ready for Pen-Based Computing Today!

"We think the pen is the best pointing device. It's direct, it's more natural than even the mouse. It's familiar, unobtrusive, small and very precise.

William H. Gates III
Chairman / CEO Microsoft Corp.
Computer Paper, May '92

"A mouse is wonderful for selecting a pull-down menu item, but when you need precise control . . . you should give up rodents and check out a cat — an ACECAT graphics tablet from ACECAD."

Paul Bonner
Senior Editor / PC Computing

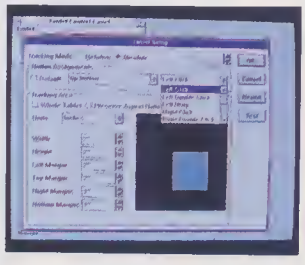
You've tried a mouse, now check out a **CAT**! Precision pointing and clicking. The fastest, easiest way to complete your tasks in record time! And with our powerful new **WINTAB multi-pointer driver** you can even keep your mouse installed along side your **CAT** until the superior performance of the **CAT** chases your rodent right out of the room! Simple to install and use, the **CAT** provides superior **"Absolute Positioning"** and a wealth of customization options. Moving the cursor around is a breeze. You can quickly and easily customize the active region on the tablet to any size (up to 5" x 5") making pointing and selecting as easy as a slight wrist movement, a boon to those suffering from the tedious rolling strain of relative rodents! Use the included **Tablet Control Panel** to customize the button options in any combination of functions, left click, right click, left double click, left-drag, etc. Unlike mice or trackballs, you can use the **CAT** on your desk, off your desk, standing making a presentation or comfortably reclining in your chair. Work the way you prefer, with ease and spontaneity.

SCIENTIFIC COMPUTING & AUTOMATION READERS' CHOICE '94

MICROSOFT® WINDOWS™ COMPATIBLE

The **ACECAT II's** ergonomic, lightweight (1.02 lb.) and compact design make it perfect for freehand sketching, drawing, CAD and even works with the latest Pen-Based Computing Applications! (Over 3000 Windows applications are already Pen Aware!) **ACECAT II** is your **COMPLETE** pointing tool!

ACECAT II is the next generation of the critically acclaimed **ACECAT** Graphics Tablet. New features include 2000 LPI (lines per inch) resolution, superior cursor stability, a custom template overlay, replaceable pen tips, cable channel for left handed friendliness, and all new custom drivers and utilities making switching between Windows and DOS a breeze. Consuming less desk space than a mouse pad, and as intuitive as the implement you first used to draw and write with, the **ACECAT II** is your ultimate pointing tool. See the **ACECAT II** in action at top Computer Retailers everywhere. For more information on the new **ACECAT II** and the complete **ACECAD** family of computing solutions, call us today at: (408) 655-1900.



1-800-676-4ACE

ACECAD®

Making Digitizers That Make Sense

Acecad is a registered trademark of ACECAD, Inc.
All other trademarks are property of their respective owners.

Test Drive **ACECAT II** at: Egghead, CompUSA, Computer City, Incredible Universe, Fry's Electronics.

Going Mobile

BY SCOT FINNIE

If you want to gain flexibility and mobility, a notebook PC makes a great second computer

IF YOU BRING WORK HOME from the office and have school-age children who have reports to write and computer-based projects to pursue, you'll soon discover that a single desktop family computer can't handle all your needs.

You know you're on the brink of needing a second computer when you find yourself using sign-up sheets and timers to help you get access to your computer. If you're ready to contemplate a second PC, in many ways a notebook computer is more versatile than a desktop model. A notebook PC is likely to be a better solution than another desktop if any of the following apply to you:

- The files you want to bring home from the office don't easily fit on floppy disks.
- You can imagine using a computer while you're commuting or waiting for your kids to get out of soccer practice or dance class.
- You can see yourself using a computer on business trips — in airports, hotels, and client waiting areas — or on vacation.
- Your kids could use a notebook PC at the library or a friend's house — when adults don't need it for their own use.

Why a Notebook Makes Sense

A second computer will double the number of family members who can compute at any given moment — and a notebook PC will give you the option of computing anywhere, anytime. A family with two working adults and computer-active children will still need to work out a schedule and some way to ensure that top-priority tasks get preferential treatment, but a desktop/notebook combination will often provide more flexibility than two desktops could.

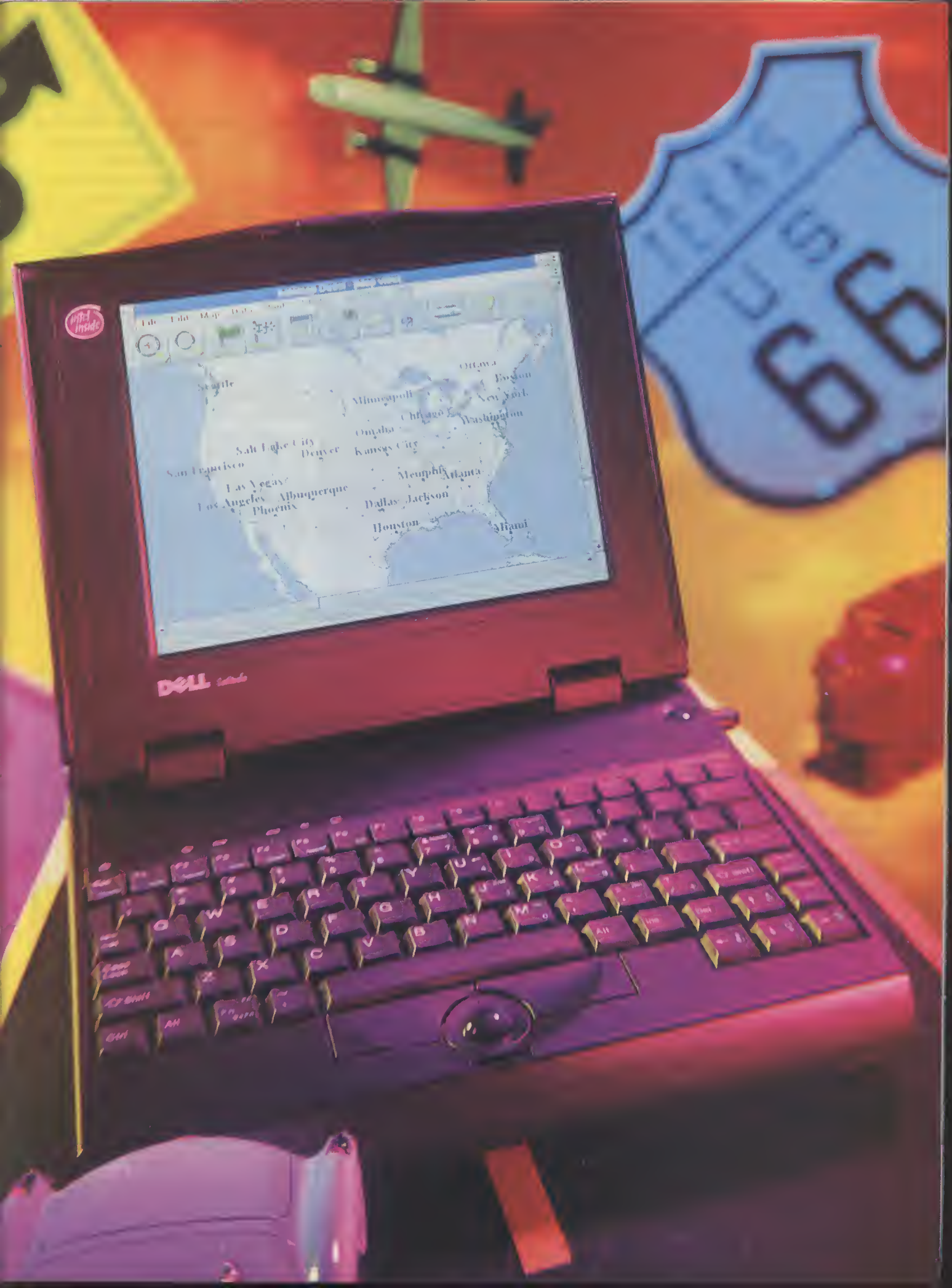
A basic notebook PC that costs less than $2000 won't provide you with the multimedia capabilities of a $2000 desktop computer. That bare-bones notebook may provide you with all the added computing power you need. However, if you expect your second computer to provide you with the entire range of multimedia capabilities currently available on desktops, including the fastest graphics accelerators and processors, you probably need and want a desktop machine rather than a notebook PC. Check "What's Out There" for a summary of the features you can expect to find in different price ranges.

Notebook PCs can make it easier to bring work home when you have to. In many two-computer households, the notebook PC is reserved as the personal domain of the adults. During crunch times, a working parent can take the notebook to the office, copy large projects onto its hard drive, and then work at home as long as necessary without tying up the family desktop.

When adults don't need the notebook for work, older children will welcome the opportunity to take it to the library or to friends' houses to work on research or collaborative projects.

On the Road Again Notebook PCs are handy when you travel on business or pleasure. Not only can you work away from the office, but, with the right software, you can call into headquarters for e-mail.

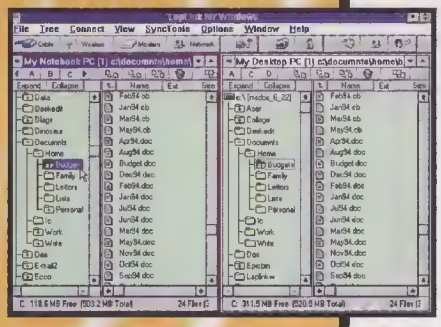
Photographs by Neal Farris


Ottawa
Boston
New York
Washington
Chicago
Minneapolis
Omaha
Salt Lake City
Denver
Kansas City
San Francisco
Las Vegas
Los Angeles
Albuquerque
Phoenix
Memphis
Atlanta
Dallas
Jackson
Houston
Miami
DELL

Easy File Transfers with LapLink

There's more than one program available that will help you connect your notebook to your office PC and copy files back and forth, but Traveling Software's LapLink for Windows and LapLink V for DOS are the best. The DOS version is especially fast, and the Windows version is rich in features and easy to use. Both programs come with parallel and serial cabling. But use the yellow parallel cable — it's faster. Just connect one end to the parallel, or LPT, port on your notebook, and the other end to the same port on your office PC.

Follow the instructions for installation. Then launch LapLink on both computers; it's preconfigured for this kind of file transfer. In the Windows version, just decide which computer will be the one you want to work from. Click the Cable button on the other machine. Next, click the Cable button on the first PC.



LapLink for Windows presents two File Manager–style windows side by side, and you can copy or move files in either direction. The name you gave each computer during installation shows up at the top of each window, so you won't get confused. To copy a file or directory of files from your notebook to your desktop, just click and drag it from the notebook to the directory location on your office PC where you want the file or files to be copied. That's all there is to it.

LapLink for Windows, $199.95; **LapLink V for DOS, $169.95**; Traveling Software, 18702 North Creek Parkway, Bothell, Washington 98011, 800-343-8080 or 206-483-8088

Just be sure they know how to take responsible care of the notebook before you grant them permission to take it on a road trip.

A notebook also gives you the option of making productive use of all those times when you find yourself waiting around — such as in dentists' and doctors' offices and in service-station waiting rooms. If you commute by train, carpool, or bus, having a notebook can help you get a jump start on your day or wrap it up sooner.

Business Assistant on the Road

If you use a PC at work, it probably won't take any great stretch of imagination for you to think of ways to make use of a portable PC when you travel on business trips. If your company uses electronic mail around the office and you can dial in with a modem to access your office e-mail, that alone is sufficient reason to consider traveling with a portable PC.

A color notebook can help you make convincing presentations to prospective clients. But if you don't have a color screen or your presentation would benefit from a large external monitor, keep in mind that many companies and some hotels are accustomed to providing these for meetings; just call ahead and request one.

For salespeople in particular, the ability to write call reports, order confirmations, and follow-up letters on the go or in a hotel room not only saves time but also boosts the quality of those reports. Details of meetings are sharper and easier to enumerate if they can be captured by the keyboard when they're fresh in your mind. At trade shows, you can bring your meeting scheduler with you and make changes the way you're used to.

If you're lucky, your company is already aware of these advantages and provides access to company-owned notebook PCs for business trips. If not, it may support the idea once you take the lead and demonstrate the productivity gains that come with notebook use. And that might incline your company to share the cost burden with you.

Make Vacations More Rewarding

Taking a notebook PC on vacation can help free you from the office, especially on longer vacations, where checking in once or twice (or even daily) is virtually mandatory. Being able to check in with e-mail instead of the more involving telephone can be a blessing.

For most kids, playing computer games rivals eating ice cream. A notebook computer is an entertainment ace in the hole for rainy vacation days. Pull out your notebook, fire up Tetris, Prince of Persia, or another favorite family game, and — *poof* — instant family fun on a gray, wet afternoon.

10 Tips for Getting the Most from Your Notebook PC

Once you add a notebook PC to your family's computing setup, you'll want to maximize the mileage you get from it. The tips that follow will help you make the most of a notebook PC for work after business hours, on business travel, and on vacation.

1 **Copy files directly to your notebook PC from your office PC** instead of working with floppy disks, especially for larger files or collections of files. Traveling Software's LapLink for Windows or LapLink V for DOS (see "Easy File Transfers with LapLink" for how to use the program) lets you connect your notebook PC

Keep a Travelogue Type in your kids' daily dictation for a vibrant record of your vacation.

to your office PC using a fast parallel or serial cable connection (both are included). It copies files and directories back and forth between two computers. So it makes bringing home large chunks of work, like presentation graphics, databases, and jumbo spreadsheets, a much easier proposition.

2 **For at-home use, turn off power management** and consider removing the battery. If you use your notebook mostly for bringing work home, you probably don't often need battery power, because you're always near an outlet. Power management features could slow performance and may also be annoying (e.g., when the screen blinks off after a predetermined period of inactivity or your hard drive hesitates for a moment or two). The three most common power management controls are (in descending order of power savings) screen backlight shutdown, hard drive shutdown, and CPU slowdown.

Each brand of notebook takes a slightly different approach to power management, but the controls that let you adjust or shut off specific parts of the power management setup are accessible by calling up a utility from Windows, pressing a specific key combination from DOS, or invoking a control panel from the Mac's Apple menu.

Also, when you're not traveling, you can cut down a bit on back and shoulder strain by removing the battery from your notebook to reduce its weight. (You'll tote up to two pounds less, depending on which battery your notebook uses.)

3 **Consider purchasing an external monitor** if you do hours of work from home. It can plug right into the back of your notebook. A regular monitor will reduce eyestrain and make you more productive by giving you room to spread out on-screen. Also, less expensive monochrome-display notebooks will display color on an external color monitor. Expect to pay around $250 to $500, depending on make and screen size.

4 **For at-home use, there's no need to buy a second printer.** Just get an A/B switch box (available for $15 to $30 at Radio Shack or computer specialty stores). Attached to your printer, it lets you plug in printer cables from both computers and connect either computer to the printer with a simple flip of a switch.

Money Matters Notebook PCs let you enter expenses daily and allow you to balance your checkbook while you're commuting.

5 **If both your notebook and your desktop are Macs,** connect them with inexpensive LocalTalk connectors and copy files with software already built into all Macs with System 7.0 and higher. This is inexpensive and easy to set up, but copying proceeds slowly — sometimes very slowly — and the process is a bit cumbersome if your office Mac is already networked. If you want to go cross-platform (get a Mac and a PC to exchange files), your best bet is to use a modem, a network, or e-mail (see the Help! section in the April *FamilyPC*, page 44).

6 **Try these tricks for printing on the road.** Most of the better hotels have business centers with business-quality printers. Simply bring your notebook to the business center, connect to the printer, and print out. To prepare for this, it's a good idea to install printer drivers under Windows' Setup for a wide variety of printer brands, or call ahead to make sure you've got the right one installed. There's a more ingenious way to print, too. If the quality of the printed page isn't that important to you, use your notebook's fax modem to fax yourself the pages you want printed. All hotels and many better motels have fax machines. You can even do this before you get to your overnight destination, so the hard copy will be waiting for you when you check in.

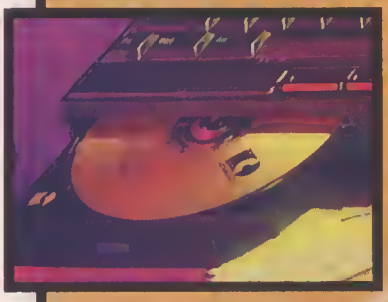
7 **For airplane trips: think power management.** When you want to work on a plane, especially for cross-country trips, be prepared. To get the most out of the trip, buy a second battery for your notebook and read the manual to become familiar with how to swap

Make Mine Multimedia

Tips on how to turn any notebook PC into a full-blown multimedia PC

IF YOU'VE ALREADY DECIDED to buy a notebook but you think you might want to add multimedia enhancements later, choose your notebook model carefully. There are almost as many ways to make a notebook PC multimedia-capable as there are notebook manufacturers.

One strategy for having multimedia capabilities on the go is to make a large initial investment, probably more than $4500, for a fast, multimedia-equipped notebook with an external monitor. A few notebooks, like IBM's ThinkPad 755CD, have all multimedia elements, including a CD-ROM drive, built in. In the long run, this is the least expensive approach — and it will give you more multimedia capabilities than other approaches.



There is one caveat: notebooks are still not as capable as desktops in the multimedia arena — so if you want the maximum in multimedia capabilities, a desktop will ultimately give you more.

Another method is to purchase a far less expensive notebook model that offers one of the following upgrade options:

- **An external multimedia kit.** These kits provide sound capability, an external CD-ROM drive, and external speakers. The sound card could be embedded in the CD-ROM drive electronics or on a PCMCIA card (a credit-card-size expansion card). Zenith recently introduced a PCMCIA card–based external notebook multimedia kit (Z-Player, $499) that will work with most notebook PCs. (See the Z-Player review in the January/February *FamilyPC*, page 210). That's an option that could save you money.
- **A docking station with a CD-ROM drive and a sound card.** A docking station is a computer case that resides on your desk, often under the monitor. You just slide your notebook into it. Your CD-ROM drive and sound card will be part of the docking station and not usable when you remove the notebook. Docking stations are available from just a few manufacturers, including Apple, NEC, Toshiba, and Compaq.
- **An add-on CD-ROM player.** Some notebook models, usually the more expensive ones, incorporate a 16-bit sound card, and even speakers, in the notebook itself. For those, all you'll need to add is an external CD-ROM drive. For systems with PCMCIA slots but no 16-bit sound, you can purchase PCMCIA sound cards from a number of vendors. Either way, this path is the most practical and least expensive way to gain multimedia capability in a notebook PC.

batteries without shutting down. Most notebooks let you do this nowadays. Before the trip, make sure you've properly charged both batteries according to the manual.

Your notebook is likely to have one of three types of batteries, listed here in order of most to least common: nickel cadmium, nickel-metal hydride (NiMH), and lithium ion. Nickel cadmiums are the cheapest, but they also have the shortest charge life and are usually bigger and heavier than either NiMHs or lithium ion batteries. Some notebook models offer a choice of either nickel cadmiums or NiMHs; expect to pay a premium for the latter. Lithium ion batteries are available from only a few vendors (e.g., Sharp, Sony, and Toshiba), but ounce for ounce, they provide the most energy.

Regardless of what type of battery your notebook uses, worrying about fully discharging before recharging is no longer necessary. Today's notebooks do the discharge automatically before recharging.

When you're on the road, you'll want to use your notebook's power management features to best advantage. Power management can considerably lengthen the time you get from each battery charge. If the applications you want to run don't require a lot of horsepower — i.e., text-based programs like word processors or simple databases — you can run the CPU at slower rates. Also, you want to make sure the power management keeps the hard drive shut down as much as possible unless you are doing a task that requires frequent reads and writes to disk, such as updating a personal information manager (PIM) or database manager.

8 **Get a better pointing device.** Ideally, your notebook has a built-in pointing device, like the "eraser head" that sprouts from the keyboard in IBM's ThinkPads. (Try out trackballs and other pointing devices while choosing a notebook PC, and choose one with a pointer that you find easy to reach and control.) If you currently own a notebook PC that requires you to carry a desktop-size mouse when you travel, consider replacing the mouse with an add-on pointing device from your notebook manufacturer or with an attachable trackball pointer from Logitech, Microsoft, or other third-party companies.

9 **Don't take a notebook just anywhere.** Consider where you're going, and plan accordingly. Don't, for example, take a notebook to the beach. Sand, sun, and salt can seriously damage it. If you're going to a cabin in the woods without power, the same probably applies. And unless you're tailgate camping, leave the notebook at home on hikes into the woods. Most notebook PC manufacturers offer adapters that let you run your notebook from your car's cigarette lighter. The best advice is not to fool with a 12-volt car lighter adapter made by any company other than your notebook's manufacturer. If it doesn't offer this option, you should probably steer clear of the practice.

10 **Keep your notebook with you.** Never check a notebook computer with your baggage on an airplane. Its LCD screens, tiny hard drives, and thin chassis are not highly resistant to the kind of pounding that baggage takes. There are all sorts of schools of thought about whether you should put a notebook PC through the airport gate X ray or ask the attendants to examine it separately. To be extra sure about the integrity of the data files on your hard drive and any floppy disks you're traveling with, ask the attendants to inspect them by hand.

Often, airport security officers ask you to turn on your notebook PC to confirm that it works (and doesn't contain a bomb or other contraband), so don't carry on the notebook and pack the battery, and be

At Last. Computer Furniture You Can Live With.

Create the ultimate personalized work space with sturdy, real oak furniture that beautifully complements the decor of your home.

Designed for computer users by computer users, our flexible styles ingeniously accommodate a wide variety of hardware and accessories. Make the most of limited space to comfortably fit the way you work — turn as little as 42 inches of wall space in-to a fully equipped home office.

Don't settle for less. Bring home top-quality American craftsmanship at factory-direct savings. Sixteen desks starting at $419.00. Your satisfaction is guaranteed.

Delivered And Set-up In Your Home Or Office.

Call Today For Your Free Catalog

(24 hours a day, 7 days a week)

COMPUTER FURNITURE DIRECT

1•800•423•2157

Ad Code - FP 0695

sure the battery is charged before you head for the airport.

Also, never leave the notebook PC unattended in an airport or a car. Think twice even about leaving it unattended in the trunk of a car. Some hotels let you lock it in a safe, and a few offer safes in the rooms. Temperature extremes, like heat in the summer and cold during the winter, are also a minor concern. The rule of thumb is, if your notebook gets exceptionally hot or cold, bring it into the house or office and leave it for several hours to acclimate before turning it on. Finally, get fire, theft, and damage insurance for your notebook if possible.

Said and Done

Buying a notebook PC is a major investment. But if your family uses your home computer a lot already, as the kids grow older and their bedtime gets later, having a notebook PC in the house will be a lifesaver for parents who want to work at home without pulling their kids off the family computer. FPC

Scot Finnie is a contributing editor to FamilyPC *and the executive editor of Ziff-Davis Interactive.*

What's Out There

When deciding how much you need to spend on a portable, your chief consideration should be how many hours a day you use it. If you use a notebook primarily for travel, homework, or two or fewer hours a day, you shouldn't need to spend more than $2000. On the other hand, a full-fledged multimedia machine that you use as your only computer can cost $4000 or more. But rest assured you'll find many alternatives in between. We recommend insisting on nothing slower than a 50-MHz 486SX2 CPU chip, at least 8 megabytes of RAM, and at least 160MB of hard drive space. Here's a summary of what you can expect to find in three distinct price categories.

— Marty Jerome

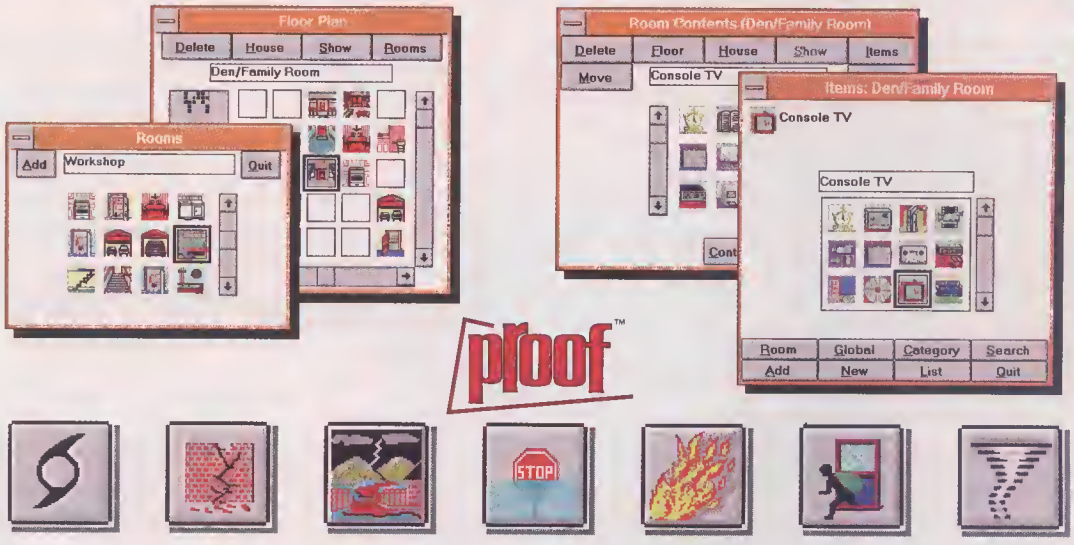
Notebooks on the Move
Notebook PCs are fast becoming more affordable for families. Shown here are (left to right) Compaq's Contura Aero, Dell's Latitude 450C, and IBM's ThinkPad 755CD.

Price range	$1500 to 1900	$1900 to 3000	$3000 Plus
CPU	33-MHz 486SX or 50-MHz to 66-MHz 486DX2	50-MHz or 66-MHz 486DX2 or 75-MHz DX4	75-MHz or 100-MHz DX4 to 75-MHz Pentium (Windows); 33-MHz 68LC040 to 66-MHz PowerPC 603 (Macintosh)
Memory	4M8 to 8MB	4M8 to 8M8	8M8 to 12M8
Storage	150M8 to 200MB hard drive; internal (or external) floppy drive	150M8 to 340MB hard drive	300MB to 800MB hard drive; internal floppy drive; dual-speed CD-ROM drive (built in or available in docking station)
Display	8.5-inch or larger (measured diagonally) passive-matrix color screen	9.5-inch dual-scan passive-matrix color display	9.5-inch or larger dual-scan passive-matrix or active-matrix color screen; at least 256 simultaneous colors at 640- by 480-pixel resolution — the more colors at this resolution, the better
Keyboard	Key spacing no less than 90 percent of the spacing on desktop keyboards; independent PgUp, PgDown, Home, and End keys; full-size Shift and backspace keys	Same as at left, plus full-size QWERTY keys; half-size or larger function and cursor keys; integrated pointing device	Same as at left
Ports and adapters	At least one serial port to connect a modem or mouse; one printer port; a monitor port; and a keyboard port to connect a full-size keyboard	Same as at left, plus an adapter for an external monitor; one Type III or two Type II PCMCIA slots; docking station adapter	Same as at left, plus a microphone jack; speaker/headphone jack
Features and options	One or more PCMCIA (Type II) slots for modems and memory cards; otherwise, an internal modem option; a port replicator for easy connection to peripherals	Same as at left, plus a port replicator option for easy connection to peripherals; docking station option for full desktop capability; pop-up battery gauge; instant-resume feature; ability to swap batteries without shutting off system	Same as at left. plus a16-bit audio chip with stereo-quality speakers (preferably two); infrared port for wireless transmission of data; removable hard and floppy drives
Examples	**Compaq Contura Aero** ($1599; 800-888-0246); **Dell Latitude 433c** ($1799; 800-879-8813); **Toshiba T1910CS** ($1849 to $1999; 800-457-7777)	**Dell Latitude 450C** ($1999; 800-879-8813); **WinBook XP** ($2259; 800-254-7813); **Zeos Meridian 400** ($1995; 800-723-2998)	**IBM ThinkPad 755CD** ($7049; 800-426-2968); **Apple PowerBook 540c** ($4079 to $4999; 800-538-9696 ext. 525); **NEC Versa M/75TC** ($4349; 800-632-8372)

Free

Personal Inventory Manager™

~~$99.99~~ FREE! (While supplies last!)



Will you know what you had when it's gone? Could you prove it?

Finally, Personal Inventory Software That Is Quick, Easy, And Fun.

Armed only with a mouse and Fusion Software's **Proof**, you can capture the contents of your home or office, and it's quick, easy, and fun. Now you can have the peace of mind you have always wanted, knowing that you are properly insured. And filing an insurance claim with **Proof** is as easy as clicking a mouse button.
What used to be a boring, tedious, text operation with a database, word processor, or spreadsheet, is now fun, easy, and graphical with **Proof**. If you can drag and drop an icon, you can create a list of the contents of your home or office. It's that simple!

Proof does it all!

- Provides a complete record
- Contents selection, sorting, and reporting.
- Prints claim forms
- Settlement tracking

A Personal Inventory Manager That Has Expert Insurance Advice.

Over 600 colorful icons to help you identify rooms and items in your home or office. You may enter as little or as much information about each item as desired. You can even assign an heir. **Proof** will help you by highlighting insurance company requirements.

Fusion Software

To prove how important we think your records are we are giving away thousands of copies. But you have to act fast. Order your FREE version of our $99.99 Proof now.*

All mail-in orders postmarked on or before Sept. 1, 1995 are guaranteed to ship for the shipping and handling charge only.

ORDER TODAY!

800-856-8566

713-465-6363 (Houston)
713-465-9749 (fax)

Mail: **Fusion Software**
9337-B Katy Frwy, Ste YP506
Houston, TX 77024
TX residents add 8.25% sales tax

American Express Cards · MasterCard · VISA · DISCOVER

Microsoft® Windows™ Compatible

***There is a $9.95 nonrefundable shipping and handling charge.** Have your Amex, Mastercard, Visa or Discover card ready. One copy per household. Canada add $3, other countries add $22. IBM PC or compatible, running Windows 3.1, VGA or better, mouse or compatible device, and minimum 4MB ram required. Fusion Software reserves the right to end this offer at any time. © Fusion Software,Inc, Houston, TX 77024.
Proof is a trademark of Fusion Software. Windows is a trademark of Microsoft® Corporation.

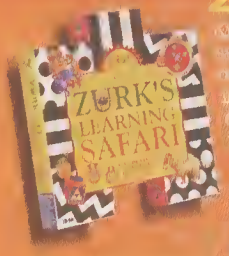
YP506

Expert Consultation Satisfaction Guarantee Free Technical Support Discount Prices

The Edutainment Company presents...

CALL FOR A FREE CATALOG!

Software Your Family Will Love!



Zurk's Learning Safari — Reasoning

Join a host of [illegible] characters on a [illegible] safari through the [illegible]. They'll [illegible] to cognitive [illegible] to basic [illegible], reading, and math concepts as they explore a series of engaging activities in an open-ended learning environment. An award winning, beautifully crafted program!

142001 (DOS/Windows,Diskette) - [illegible] $29.95
142002 (Mac,Diskette) - [illegible]

3-6 AGE | PC DOS | WINDOWS | MACINTOSH | DISKETTES | AWARD | SCHOOL

NEW!

Nile Passage to Egypt — Geography

Climb aboard your felucca and journey up the Nile. Explore the history, scenery, and civilizations that make the Nile one of the greatest natural wonders of the world. Join the Temple of Hatshepsut play Egyptian games, travel up the river choosing your itinerary along the way, even write a travel log in your personalized journal! New from the Discovery Channel!

122012 (Windows,CD) - $34.95
122013 (Mac,CD) - $34.95

10+ AGE | WINDOWS | MACINTOSH | CD-ROM

The Guinness Encyclopedia — Reference

From the publishers of the Guinness Book of World Records comes a new, easy to use multimedia encyclopedia! Its intuitive interface doesn't require extensive searches and look ups. Instead, you can learn all about a specific subject matter using colorful, interactive [illegible] and illustrations and then quickly move on to related subjects. An incredible value!

330007 (Windows/Mac,CD) - [illegible]
$30.00 $25.95

WINDOWS | MACINTOSH | CD-ROM

The Rabbits At Home — Reasoning

Introduce your children to early [illegible] with the lovable Rabbit Family! This softly illustrated program introduces young children to skills such as colors, time and language. Learning happens automatically as children follow the fun of Family through their day: breakfast, brushing teeth, playtime, bedtime and more. Four hard cover books are included!

282001 (Windows/Mac,CD) - $49.95

2-6 AGE | WINDOWS | MACINTOSH | CD-ROM

AlphaBonk Farm — Reading

This award winning and slightly irreverent program engages children with a funny romp through a wacky farmyard! A [illegible] parrot recites rhymes and 3 [illegible] play games. Kids can move, change and create [illegible] among more than 300 objects in over 90 activity screens, and with more than 35 hours of play, kids will come back again and again!

396001 (Windows/Mac,CD) - $50.00 $32.95

4+ AGE | WINDOWS | MACINTOSH | CD-ROM | AWARD

Headbone Interactive

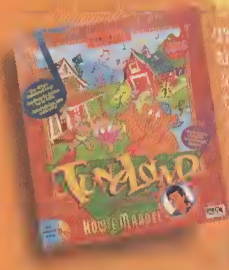
Elroy Goes Bugzerk — Reasoning

Elroy and his trusty bloodhound Blue need your help to win the 10th Annual Insecterton! Unfortunately, thuggish arch-foe Gordon Shrugg has a giant head start. Elroy's best hope is to capture the wily Terminoptera, the cyberbug of his dreams. Negotiate, investigate and pull your problem solving skills to the test. More animation than a feature length film!

396002 (Windows/Mac,CD) - $50.00 $32.95

7-12 AGE | WINDOWS | MACINTOSH | CD-ROM

NEW!



TuneLand — Entertain

The kids will sing and dance to their favorite tunes with their pal Lil' Howie! TuneLand stars Howie Mandel as a lovable animated bear in the world's first interactive cartoon. Kids can click and play around in eight colorful scenes for hours of interactive entertainment. It features film-quality animation and more than 40 classic children's songs!

218001 (Windows,CD) - $32.95

2-5 AGE | WINDOWS | CD-ROM

7th LEVEL

BattleBeast — Entertain

From the makers of "Monty Python's Complete Waste of Time" comes this zany new game for kids aged 12 and up. You'll find out what it's like to play inside a Saturday morning cartoon as you hid the world of killer toads, water robots disintegrate into their components, and have a smashing good time! Look for a special sneak preview on CompuServe this month!

218004 (Windows,CD) - $32.95

10+ AGE | WINDOWS | CD-ROM

COMING IN JULY!

Years 2 Learn - Snoopy's Geography — Geography

Explore the world with Snoopy and the Peanuts gang! Five different activities challenge your child to learn navigation skills, how to read a compass, the names of countries and more. There's also a Adventure Journal, the Driving Game, Geopardy, and lots more to keep the learning fun - even a multi-player game show covering global knowledge!

135014 (Windows,Diskette) - $60.00 $34.95
135013 (Windows,CD) - $60.00 $34.95
135015 (Mac,Diskette) - $60.00 $34.95
135012 (Mac,CD) - $60.00 $34.95

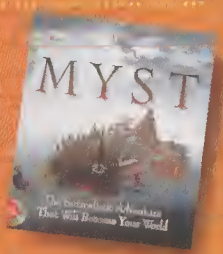
6-12 AGE | WINDOWS | MACINTOSH | CD-ROM

Myst — Reasoning

Journey to an island world surrealistically caged with mystery... Where every object may hold vital clues to your unraveling a chilling tale of intrigue and injustice that defies all boundaries of time and space. Once you start you'll soon know why this is one of the all-time best-selling CD-ROM's.

106058 (Windows,CD) - $49.95
106057 (Mac,CD) - $49.95

WINDOWS | MACINTOSH | CD-ROM



ORDERING IS SO EASY

MasterCard VISA

CALL 1-800-338-3844

Only $4.00 shipping & handling charge for one item, or $6.00 for two or more items. If you can't find what you are looking for or you have questions about your hardware compatibility, please call. We offer hundreds of non-violent Edutainment titles for children and adults on diskette and CD-ROM. Please call to receive our free catalog. School purchase orders are welcome.

30 DAY SATISFACTION GUARANTEE

The Edutainment Company 932 Walnut Street, Louisville, CO 80027 303-661-0799 Fax 303-661-9303

REVIEWS
HARDWARE

Compaq Presario CDS 972

Compaq brings home the Pentium

Compaq Presario CDS 972 Integrated fax, a speakerphone, and a quad-speed CD-ROM drive round out Compaq's first Pentium system for the home.

COMPAQ HAS A long-standing reputation for building fast, reliable personal computers that use the latest technology. So it's surprising that Compaq took so long to deliver a home multimedia system built around the Pentium processor, the fastest chip used in PCs. The Presario CDS 972 75-MHz Pentium system with 8 megabytes of RAM ($2149 street, as estimated by Compaq; the system was not yet in stores at press time) won't break any performance records compared to other systems we've seen, but with integrated telephone and fax and one of the best software collections around, it deserves a place in your home.

FamilyPC Rating ★★★★

Although software is the big draw, hardware components include a 725MB hard drive, 14,400-bit-per-second fax modem, Sound Blaster–compatible sound card, and quad-speed CD-ROM drive. Compaq utilities let you configure or learn about virtually all Presario components (the Presario supports Intel's Plug-and-Play standard) through simple graphical programs. Some units even come with built-in television capability. Compaq's MediaPilot software runs the built-in phone and fax through a friendly on-screen operator. And Tabworks, a nice replacement for the Windows Program Manager, keeps your software neatly organized.

What the *FamilyPC* Ratings Mean

★★★★ Flawless

★★★ Recommended

★★ Good

★ Needs work

★ Woeful

The Presario also comes with a library of sixteen solid educational, productivity, and game programs. Some notable titles are Microsoft Works, Crayola Art Studio, and The Even More Incredible Machine. You will also find software to quickly get you online with Prodigy, America Online, CompuServe, or Reuters.

Our least favorite part of the package is the Presario 150 monitor. The speakers and microphone are built-in, which keeps the speakerphone handy, but the display measures just 14 inches and is rounder than most, which makes graphics look bowed.

Setting up the Presario is easy, although sometimes a bit unnerving. First, you have to make an irrevocable choice of language (a step that Compaq says won't be necessary by the time you read this). Then you sit and watch the computer install software by itself for around 40 minutes, during which time you must not turn it off (or have a power failure). However, a quick-start guide and question-and-answer-style manuals guide you through it all.

This is a solidly built computer, and Compaq's outstanding reputation for quality and support earns the system a lot of points. We think that quality and an excellent software bundle make the Presario CDS 972 worth the wait.

Compaq Presario CDS 972, 75-MHz Pentium, 8MB RAM, 725MB hard drive, 14-inch monitor, 14.4-kbps fax modem, quad-speed CD-ROM drive; Compaq Computer, 800-345-1518; **$2149.**

For Comparison

Check the FamilyTested Hardware section in the May 1995 *FamilyPC* for the criteria used to grade the systems here, and for information on the computer we currently consider the top of the heap — the Gateway 2000 P5-75 Family PC.

Packard Bell's 75-MHz Pentium Dual CD-ROM drives and integrated speakers make for a nice multimedia system.

Packard Bell Multimedia Pentium PC

Twin CDs and Pentium power

A CD-ROM DRIVE USED to be an expensive extra. Now, it's a critical requirement. Packard Bell's Multimedia Pentium PC goes one step further by including two CD-ROM drives, allowing you to have two CD-based applications loaded simultaneously.

The $2787 Multimedia Pentium PC is powered by a 75-MHz Pentium chip. It includes 16 megabytes of RAM, a roomy 1.275-gigabyte hard drive, and plenty of useful additions, like an integrated sound card/14,400-bit-per-second modem with telephony software and integrated speakers in the monitor. The system has a quality display, with digital controls for fine-tuning.

FamilyPC Rating ★★★½

Setup is a breeze. A well-illustrated poster and color-coded connections make putting this machine together about as easy as it gets. Mounting the speakers on the monitor is the most difficult step. If you need to upgrade your Multimedia Pentium PC later, you'll be glad to know it supports Plug and Play. (But opening it to put in any new hardware is a chore; you must remove six screws and three panels to get inside.)

Packard Bell's included Navigator software organizes applications and files. Its opening screen lets you choose from among such areas as Workspace, for productivity applications, and Kidspace, where kids can work on projects of their own. Navigator is head and shoulders above the standard Windows Program Manager for family work.

The system comes with an attractive collection of twenty-seven educational and productivity titles, including favorites from Knowledge Adventure's 3D Adventure series. If you run an office from your home, you'll find the integrated speakerphone, answering machine, and fax software invaluable.

The one thing that kept us from giving this PC a higher rating is Packard Bell's middling service and support record, which the company is addressing. Overall, however, this is a great family system.

Packard Bell Multimedia Pentium PC, 75-MHz Pentium, 16MB RAM, 1.275GB hard drive, 15-inch monitor, 14.4-kbps fax modem, two double-speed CD-ROM drives; Packard Bell Electronics, 800-733-5858 or 818-865-1555; **$2787** (street).

USA Flex 486DX4/100 Customized AMD Family Edition

Some good news, some bad news

WITH AN ASKING price of just $2199 (plus shipping) and some great multimedia components, the Flex 486DX4/100 is a system that bargain-conscious families will find hard to resist. There is a lot to like in this minitower system, including a 100-MHz DX4 processor from Advanced Micro Devices, 16 megabytes of RAM, a fast 850MB Enhanced IDE hard drive, and a quad-speed CD-ROM drive — all of which should add up to blazing performance. But actually unpacking this Flex model reveals a few compromises.

FamilyPC Rating ★★★

We found it a challenge to get going with this system. It comes with a nice setup poster, but all the component manuals are separate, and there isn't one good place to go for information. The Flex also doesn't support the Plug-and-Play standard for easy hardware upgrades.

Once we got past the setup, we were rewarded with a machine that's a delight for multimedia — its wave-table-upgradable 16-bit Turtle Beach Monte Carlo sound card and Jensen speaker set with subwoofer make multimedia titles sound like they're playing in a theater. The 15-inch CTX monitor that came with our review system had nice digital controls, and the Diamond Stealth video card made for fast graphics, but the monitor display quality was only average.

The Flex includes some good reference titles (such as the Grolier encyclopedia, world and U.S. atlases, and some productivity packages), but its collection of software is mostly for parents and older children. Educational software is limited (Mavis Beacon Teaches Typing is the best), and its few games are mostly old titles.

You'll get a fast, complete multimedia system at a bargain price with the Flex 486DX4/100. But be prepared for a few setup headaches and some additional software shopping for the kids.

Flex 486DX4/100 Top-shelf multimedia hardware, but a less impressive software bundle.

Flex 486DX4/100 Customized AMD Family Edition, 100-MHz AMD 486DX4, 16MB RAM, 850MB hard drive, 15-inch monitor, 14.4-kbps fax modem, quad-speed CD-ROM drive; USA Flex, 800-872-3539 or 708-351-9700; **$2199** (direct; plus $65 shipping).

Photography by Lightworks Photographic

Fortiva 5000 P5-60 DT5990

A nice system with needs

NEARLY EVERY DETAIL of the multimedia Fortiva 5000 P5-60, which ships with 8 megabytes of RAM and a 540MB hard drive, seems built for speed. It's easy to assemble and preloaded with oodles of productivity and communications software, and its 60-MHz Pentium processor, PCI local bus, and 256-kilobyte secondary cache send graphics and text screaming across the screen. But this $1754 Leading Edge PC is adequate at best — it doesn't even include a monitor.

Fortiva 5000 Pentium A unit with little going for it outside of its fast CPU.

The Sound Blaster–compatible 16-bit sound card and double-speed CD-ROM drive do the job, but the rest of the subsystem lacks muscle. To expose the limitations of the system's speakers, just pop in an audio CD and boost the volume — the sound is terrible.

Leading Edge uses an ATI Mach32 graphics accelerator to drive a monitor, which it sells separately; you get a choice of two 14-inch ($219 to $239) and one 15-inch monitor ($359). The unit we tested came with the glare-free, high-end 14-inch monitor with a 0.28-millimeter dot pitch. But you should pass on Leading Edge's offerings in favor of a larger display (see our look at 17-inch monitors in this issue's FamilyTested Hardware).

For surfing the net, the Fortiva 5000 is loaded with start-up software from the top five online services (America Online, CompuServe, Delphi, Genie, and Prodigy) that runs on a 14,400-bit-per-second modem.

In addition to the online service software, Leading Edge preloads Microsoft Works, Microsoft Money, and fax-modem software. It throws in a pretty good mix of twenty-five multimedia titles, including an InfoPedia reference pack, the Star Crusader game, an interactive cookbook, and at least two children's titles (Dr. T's Sing-A-Long Kids' Classics and *Better Homes and Gardens*' Dandy Dinosaur) that kept one tiny tester amused for hours.

FamilyPC Rating ★★½

Although the Fortiva's components are not state of the art, they're more than adequate to get any job done for you and your family. But the price, especially since it doesn't include a monitor, can definitely be beaten.

Fortiva 5000 P5-60 DT5990, 60-MHz Pentium, 8MB RAM, 540MB hard drive, 14.4-kbps fax modem, double-speed CD-ROM drive; Leading Edge Products, 800-874-3340 or 508-836-4800; **$1754** (street).

Canon BJ-200ex

The best and cheapest b&w ink-jet

CANON HAS MADE its top-rated BJ-200e printer (reviewed in our March issue) even better. The BJ-200ex is faster and offers higher-resolution output, while maintaining the form factor, print point, and overall support that made its predecessor one of our favorites. For $236 (*FamilyPC* Average Street Price), this is a great buy for your family.

The resolution on the BJ-200ex is now 720 by 360 dots per inch, and the speed has been increased to 4 pages per minute (ppm). While the major changes are few, they are significant for your family. The output from the BJ-200ex is now as close to laser printer output as any ink-jet print we've seen. Canon also added a smoothing technology so that edges of text don't have the jagged appearance that is sometimes obvious from ink-jet printouts on close inspection.

FamilyPC Rating ★★★★½

Our speed tests showed that the BJ-200ex could turn out high-quality pages at just a hair under 4 ppm — a bit slower than the average speed of a low-cost laser printer. The only ink-jet printer we've ever tested with faster output was Canon's own BJC-4000, which can produce 5 ppm in monochrome mode but is a more expensive product (due to its color capability).

The BJ-200ex incorporates a couple of other small improvements, including slightly better handling of heavier paper stocks and a faster-drying ink formulation. And Canon has kept its two-year warranty, with a 24-hour replacement guarantee for defective products. Still, the big news is the speed and output quality — two key shopping criteria for this type of printer.

Canon BJ-200ex Improving on the best ink-jet printer.

If your family wants a low-cost monochrome ink-jet printer, then look no further than the Canon BJ-200ex. This is the best monochrome ink-jet printer we've tested, and it offers the best value.

Canon BJ-200ex; Canon Computer Systems, 800-848-4123; **$236** (street).

REVIEWS

SOFTWARE

Supply Demand
Don't forget to stock up on essentials before you head out west.

Oregon Trail II

A challenging trek across the continent

LEGIONS OF SCHOOL-AGE fans who grew up blazing digital trails across nineteenth-century America in MECC's classic Oregon Trail have reason to celebrate. The sequel to this popular pioneer simulation game — developed in 1974 and initially played using a teletype machine — adds video, photos, voices, and sounds, successfully bringing the game into the multimedia age.

Your job is to outfit a wagon train and navigate it across the continent in hopes of staking a claim in the new frontier. Along the way you must ford wild rivers, face nasty weather and steep mountain ranges, and trade and talk to Native Americans and other pioneers to ensure your survival. Travel too slowly and you could find yourself caught atop the Donner Pass in the middle of a blizzard. Go too fast and risk running your animals, yourself, and your companions into the ground.

FamilyPC Rating ★★★★

Packing too many supplies can also exhaust your animals, but if you don't pack enough, you and your crew might starve.

If you get stuck, you can refer to the guidebook, which contains volumes of historical information that will help you make the right decisions. You can also get valuable clues by talking to folks you meet along the trail. Trading with fellow travelers is another way to ensure survival.

Oregon Trail II still has a few flaws, especially compared to more complex simulation games, such as MicroProse's Colonization and Civilization. When someone in your party gets injured, for example, you get a list of choices, several of which would seem to work. Once you make a choice, however, you have no further recourse. If you make the wrong decision, you must watch as your companion gets sicker and, in many cases, eventually dies.

Kids who tested this game were aware of this lack of control, but they loved it just the same. Since no two adventures are ever the same in Oregon Trail II, kids will return to the game again and again, picking up some valuable historical lessons along the way.

MECC, 800-685-6322 ext. 529 or 612-569-1500; Mac and Windows CD-ROM, **$58** street; ages 10 and up.

Alien Tales

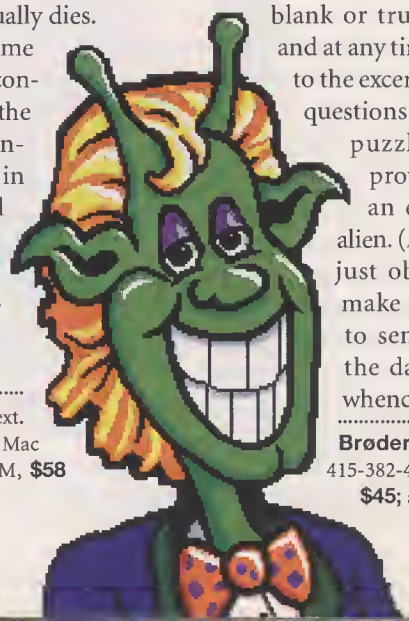
This virtual game show rewards kids and readers

CHARLOTTE'S WEB and galactic game-show hosts would seem about as compatible as motherboards and manure. But in Alien Tales, the combination results in a winning game that actually inspires kids to read classic children's books.

The secret to Alien Tales' success is its smooth interface full of colorful graphics and fun sounds, an engaging story line, and a game that's quick to reward and easy to win. In the game, kids play the earthling who has been patched in to an intergalactic network. As the contestant in a game show, the player has to prove that this group of aliens, who claim to have authored famous books from Earth, are nothing but E. B. White wanna-bes.

FamilyPC Rating ★★★½

The game features excerpts from more than thirty books written by such favorite authors as Roald Dahl, Judy Blume, and Mark Twain. Kids have to answer a number of questions about the classic books and their authors in order to succeed. Each round is set up as simple fill-in-the-blank or true-or-false questions, and at any time kids can refer back to the excerpt. As they answer the questions correctly, kids solve a puzzle. Ultimately they prove that the author is an earthling, not some alien. (Also, the imposters are just obnoxious enough to make kids only too happy to send them back under the dark moon rock from whence they crawled.)

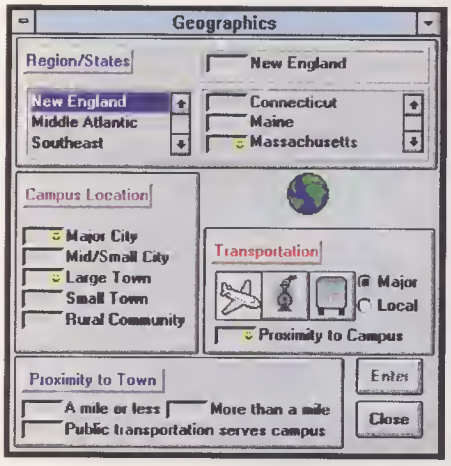


Brøderbund, 800-521-6263 or 415-382-4400; Windows CD-ROM, **$45;** ages 9 to 13.

College Software

Three programs that ease the stress of college admissions

THE PRESSURE TO DO WELL on college entrance exams and to get accepted into the perfect school puts stress on parents and students alike. Now several computer programs take much of the agony out of the college selection process and make studying for the entrance exams almost painless.



College Bound Find the perfect school by rating a variety of criteria.

CollegeWhere

This program ranks all accredited four-year colleges in the United States according to the criteria you set out in a detailed questionnaire. The first step is to enter your personal profile, including grade point average, class ranking, and SAT scores. Then launch into the description of your perfect school — should it have fraternities and sororities, or have a radio station and a drama department? How big should it be?

FamilyPC Rating ★★★★

As you answer each question, you rank its importance. If the school absolutely must have a communications department, for example, you would give it a "Yes!" ranking. The rankings go down from there to "You really don't want this feature."

CollegeWhere ranks the schools as you enter your criteria. The program also estimates your chances for admission to any of the schools and even gives you hints on how to improve your chances (get involved in more extracurricular activities, for example). It also lists detailed information on each school, including tuition and financial aid.

Once you've narrowed down the list of schools you want to apply to, go to the Letter Writer. CollegeWhere includes standard letters that you can add to and send to the admissions office, complete with the name of the school's admissions director.

With so much information on the screen, the program can be confusing and tricky to use. But once you get used to it, it offers a wealth of information and can even make the process of finding a college fun.

McCabe Software, 800-677-1606; Windows disk, **$79.95.**

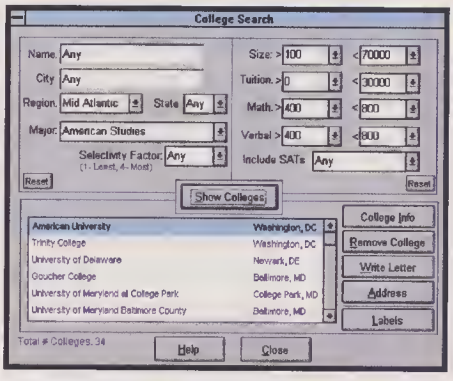
ThinkSmart's College Guide

This program is much simpler to use than CollegeWhere, but it offers only a fraction of the selection criteria. It does not rank the schools or allow you to prioritize the importance of any one factor. It will list schools by tuition range, by a state or region of the country, and by minimum SAT scores accepted. You can also limit the search to colleges that offer a certain major.

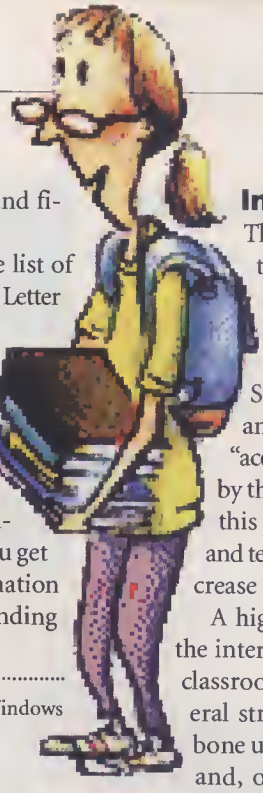
FamilyPC Rating ★★★

It lists information on each school, including tuition, acceptance rate, and financial aid. The program also has a letter-writing program to help you send for admission information, but it does not automatically include as much information as CollegeWhere and does not have the names of the admissions directors.

ThinkSmart, 800-925-6853 or 914-356-1485; Windows disk, **$59.99.**



School Choice Get information on colleges that fill the bill.

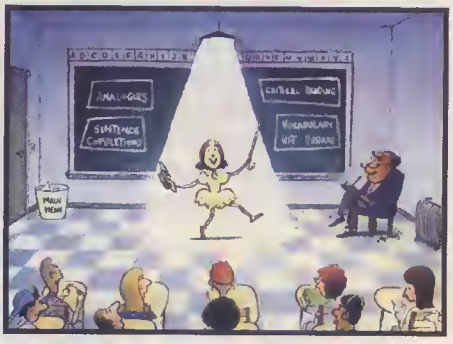


Inside the SAT

Throw out those books of practice exams and turn to your computer for a new, upbeat way to study for the college entrance exams. Inside the SAT uses colorful graphics and language to help students "ace the SAT." But don't be fooled by the jocular, irreverent tone — this program is full of great tips and techniques to help students increase their SAT scores.

A high school hallway serves as the interface, with doors leading to classrooms where kids learn general strategies for taking the test, bone up on math and verbal skills, and, of course, take a few full-length practice exams.

In the verbal section, kids learn about analogies, sentence completion, and reading. The Hit Parade is a list of 300 of the most common words used in the verbal section of the SAT. The math classroom has lessons on algebra, geometry, and comparisons. There are also a few games aimed at teaching general math and verbal concepts.



Class Act Bone up on math and verbal skills to ace the SAT.

Kids get inside the heads of the question writers in the general strategies section, where they learn how to use the process of elimination, find out where the easy and difficult questions are located, and learn how to spot trap answers.

FamilyPC Rating ★★★★

After you take the second practice test, the program tells you which areas still need work. You can also see how your scores stack up against national averages.

Princeton Review, 800-955-3700 ext. 3335 or 212-874-8282; Mac and Windows disk, **$49.**

Apple Pie Music

A musical tour of American history

USING A RICH COLLECTION of traditional music and photographs, Apple Pie Music traces the history of North America and its music from colonial times to the present and graphically illustrates how music and history relate. The CD-ROM features more than 400 full-length songs, almost half of which are original recordings, some dating back to the 1930s. The menu is set up to allow access to all information either by musical style or by historical era.

Stylistically, the music is divided into Folk, Popular, and Religious. Subcategories range from Native American ceremonial songs to plantation field hollers to the psalm-chanting of the Pilgrims. Wherever you point and click, you will find historical details, musical examples (including the "Wichita Deer Dance Song," recorded in Oklahoma in 1951, and "Rock Island Line," a spiritual recorded in 1934 at the Cumins State Farm in Arkansas), and excellent tips on where to look for other pertinent material.

FamilyPC Rating ★★★★

Music Mentor Look into the country's past through its music.

Another section divides the music historically. The main headings cover periods called Colonial (1600–1780), Expansion (1780–1900), and Industrial (1900–present). Sorted by topical, historical, and sociological concerns, this allows you to view the same material in a wholly different and very illuminating context. Listening to an old recording of "We're Stole and Sold from Africa," an abolitionist ballad, will make a strong impression on anyone learning about slavery in the American South.

It's easy to imagine that this information will be used to enliven many school papers written by kids lucky enough to have access to it. This is especially true since the search features are quick and easy to use. But if you just want to listen to good music, you can queue up a list of songs and sit back as they play one after another.

The information about and examples of jazz and rock music are sketchy and misleading. Whoever was responsible for writing that Prince is one of the main leaders of the American punk rock movement should stick to writing about ballad operas. But the data in the older entries provides a rich, detailed glimpse into the country's past and gives the listener a real feel for the social changes of each era.

Queue, 800-232-2224 or 203-335-0906; Mac and Windows CD-ROM, **$45.95** (street).

KidRiffs

Turns kids into maestros

KIDRIFFS IS A FUN, hands-on musical program designed to teach children ages five to eleven the different ways songs and tunes are assembled. With a variety of simple and recognizable melodies to manipulate (including "London Bridge" and "Old MacDonald"), kids explore five rooms, each dedicated to a different aspect of musical composition, including rhythm, timbre, and scales.

FamilyPC Rating ★★★½

Each room features about ten aspects of sound that kids can control, ranging from the simple (choosing an instrument) to the more sophisticated (investigating ways of notating and accenting notes). While all the elements of musical composition are available in each room, there's no right or wrong way to go; kids set the pace themselves.

At the Instrument Inn, kids hear the riffs played by any one of more than 100 instruments, or they can record their own tunes. At the Scale Shack, kids can transpose these melodies into a variety of keys and modes, so they can hear the same riff played in any scale. The concept is presented visually through a leaping frog who jumps up a stairway to show the note changes.

Kids use their mouse or keyboard to play drums in the Rhythm Room. Using the image of two fences, KidRiffs explains the concept of tempo by moving the fence posts closer together and farther apart for short and long beats. At the Concert Castle, it's time to put this accrued knowledge together and create full-blown ensemble compositions.

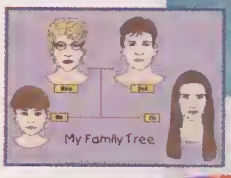
Kids can make their own melodies using either a keyboard on the screen or the computer's keyboard. By trial and error, even kids with little or no musical background will be able to figure out the melodies to favorite songs. And fooling around with all the available variables may well teach quite a bit of musical theory without anyone even realizing he's being tutored.

Tune Town Learn about scales, tempo, and rhythm with Kid Riff.

IBM Multimedia Studio, 800-898-8842 or 615-793-5090; Windows CD-ROM, **$49.95;** ages 5 to 11.

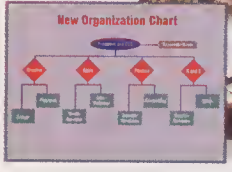
COREL FLOW™

FUN FOR THE WHOLE FAMILY



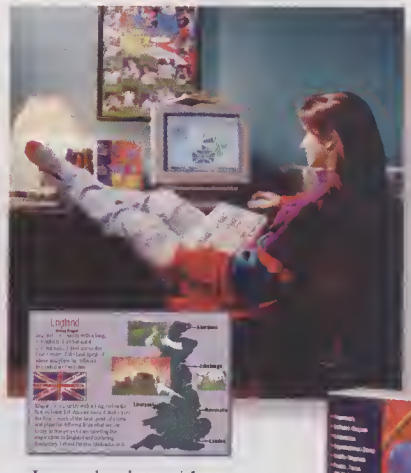
"Mix and match" the face, body and clothing symbols to create fun characters. CorelFLOW was so easy to use, our son even made our family tree!

We planned the layout of our house using the floorplan, furniture and landscaping symbols included in CorelFLOW. It was fun and saved us a lot of money!



CorelFLOW allowed me to clearly organize and communicate my ideas. Creating a diagram took no time at all, and my client was really impressed!

...WITH GREAT RESULTS!



I scored points with my teachers when I used CorelFLOW for school projects. Clipart, photos and symbols added flair to my homework.

CorelFLOW includes:

- **2,000 "drag and drop" symbols**
- **1,000 clipart images**
- **1,000 photo images**
- **100 TrueType fonts**
- **Automatic symbol connectors**
- **Direct on-screen editing**
- **Advanced diagramming features too!**

CD-ROM drive required to access complete libraries of symbols, clipart, photos and fonts.

KUR-0100

STOP -n- SAVE SOFTWARE

Call Today!
1-800-786-7472

$74.99*
*US$ plus applicable taxes

Quick and Powerful Diagrams!

COREL®

Call now for faxed literature!
1-613-728-0826 ext. 3080
Document #1054

Creative Computing

MULTIMEDIA

Vacation Tales

Create an electronic photo album of your family's special moments

by Eric Brewer

THE NEXT BEST THING to your trip down into the Grand Canyon by horseback is having the pictures and stories to remember it by. But if you're like most people, after the vacation those images and words get buried by the clutter of everyday life.

Your family PC offers a great way to recapture those memories, as well as to have fun and learn a few new computer skills: make a multimedia photo album. This kind of album bears little resemblance to the traditional tome that sits on the coffee table. Sure, it's a presentation of photos, but it's illuminated by light and punctuated with sound and snappy captions. Add special effects such as clip art and borders, and you can create an album that's far better than the traditional kind. And if you're nostalgic for a book that you can send to your grandparents, print it out: new color printers at local quick-print shops and computer stores make high-quality color easy and affordable.

But the best part of this project is that you put it together with your kids helping as assistant editors and narrators. It's an exercise that serves to rekindle happy moments you experienced on your trip and to make those special memories last even longer.

To create the album, you need a computer with sound support and a word processor that lets you embed pictures and sounds, such as Microsoft Word or WordPerfect. Integrated programs are also good for this project (Microsoft Works on the Windows side and ClarisWorks on the Mac side). You can also use more specialized programs specifically designed for multimedia photo albums (see "Great Multimedia Software" for more information).

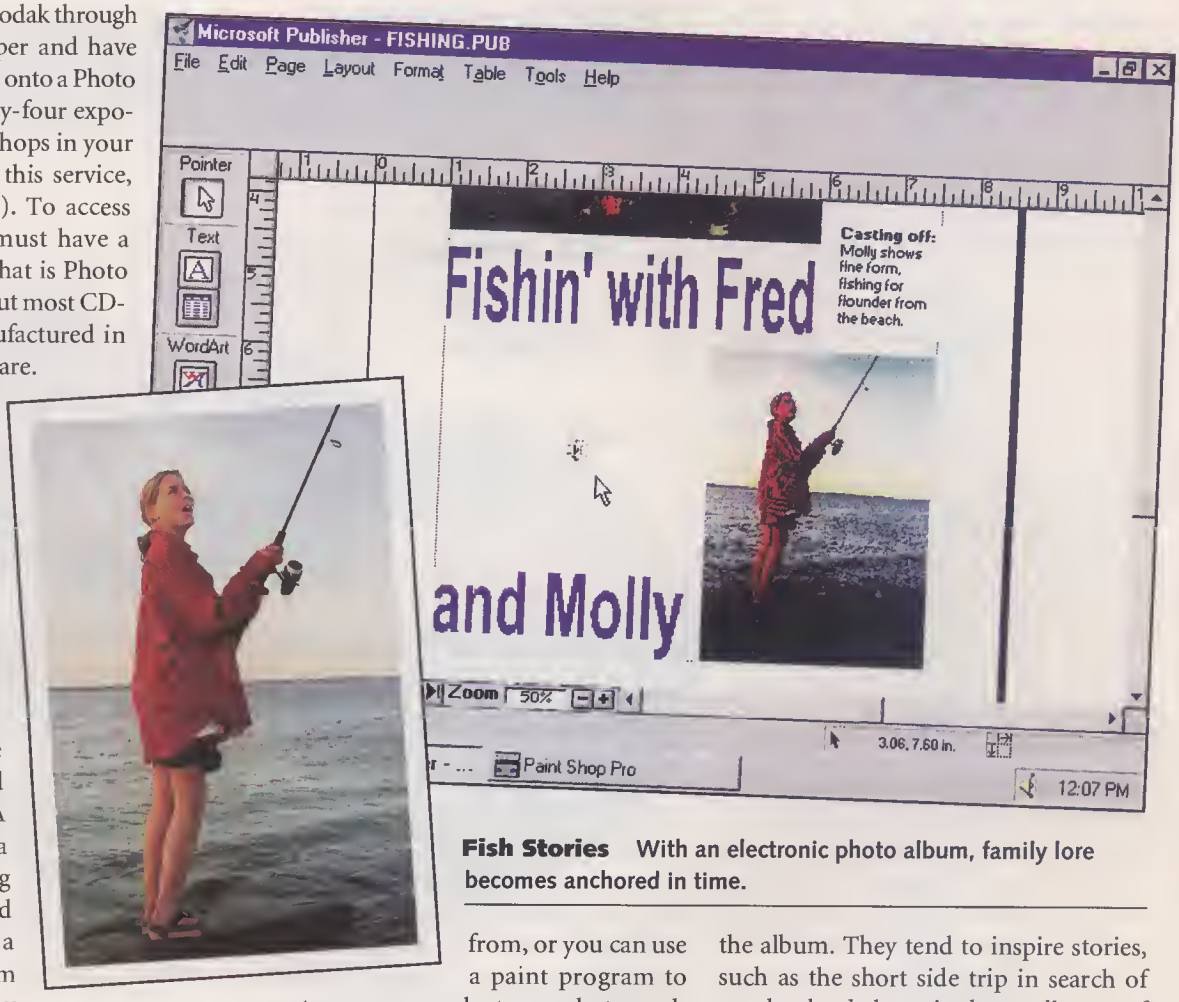
Young Salts Seeing your favorite photographs on-screen in illuminated color inspires all the senses. With some programs, you can even add sound.

Photos

The first step is to convert your vacation photos into digital form so you can import them into the software you're using for the project. Here again, you have several options. You can scan them in yourself (see our roundup of color scanners, "Flatbed and Handheld Scanners," in the April issue) or take them to a copy shop and have them scanned there. A new, inexpensive scanner from Storm Software, designed just for snapshots (see "Snapshot Scanner"), can be used. Or you can have your film developed by Seattle FilmWorks ($15 for twenty-four exposures; Windows only; 800-445-3348 or 206-283-9074), which will provide you with developed prints and a floppy disk filled with digitized images, along with software to manipulate the images. Another alternative is to send

Photographs by Lightworks Photographic

your negatives to Kodak through your local developer and have the images scanned onto a Photo CD ($29 for twenty-four exposures; for a list of shops in your area that support this service, call 800-235-6325). To access the images, you must have a CD-ROM player that is Photo CD–compatible, but most CD-ROM drives manufactured in the past two years are.



Fish Stories With an electronic photo album, family lore becomes anchored in time.

Sounds

Descriptive sound bites add a lot to a multimedia presentation, especially when you intersperse some humor. But what's even more fun and memorable are those moments inspired by the trip itself. A few seconds from a family sing-along while on the road are sure to bring a smile and a warm memory. While you may not have made any recordings from your vacation, you can use the audio track from any camcorder footage you made. Or simply get the gang together and record a bit while you are putting together the album.

Also, while they're still fresh in your audio memory, record some of those great kid comments for posterity. "We went and saw the Big Crack" is a classic quip from a visit to the Grand Canyon.

Text, Borders, and Clip Art

Almost all of the text that appears in the photo album comes in the form of captions. Add these near the end of the project. The content should include mostly factual information: a description of who's in the picture, the date, and the place. Leave the color commentary for the narration.

Borders and clip art are purely subjective, but they add a fun and frivolous element. Many programs come with preformatted borders that you can choose from, or you can use a paint program to create your own and set your photograph in it. You can easily insert clip art (it's just like inserting a photo image). Products such as Corel Gallery 2 (Windows only; 800-772-6735 or 613-728-0826), which features 15,000 images on one CD-ROM for $99, offer a variety of choices. (Corel Gallery 2 now ships with useful photo and clip-art editors. These utilities let you customize clip art and photos in all sorts of ways. The program also comes with a variety of sound and video sequences for embedding.) Online services also have plenty of clip art and sounds available for downloading.

Putting It Together

Start by gathering your album's components and laying them out in a logical order. Assist your kids in selecting photos and other information that tell the complete story of your vacation. Travel brochures from the planning stage and an invitation from Granny to visit her en route to Yellowstone are perfect items to be scanned in and included in the album. They tend to inspire stories, such as the short side trip in search of gas that landed you in the small town of Scenic, South Dakota. This is a nice spot for a scan of the map, complete with a picture of Long Horn Enterprises in the background (tumbleweed, steer skulls, and all).

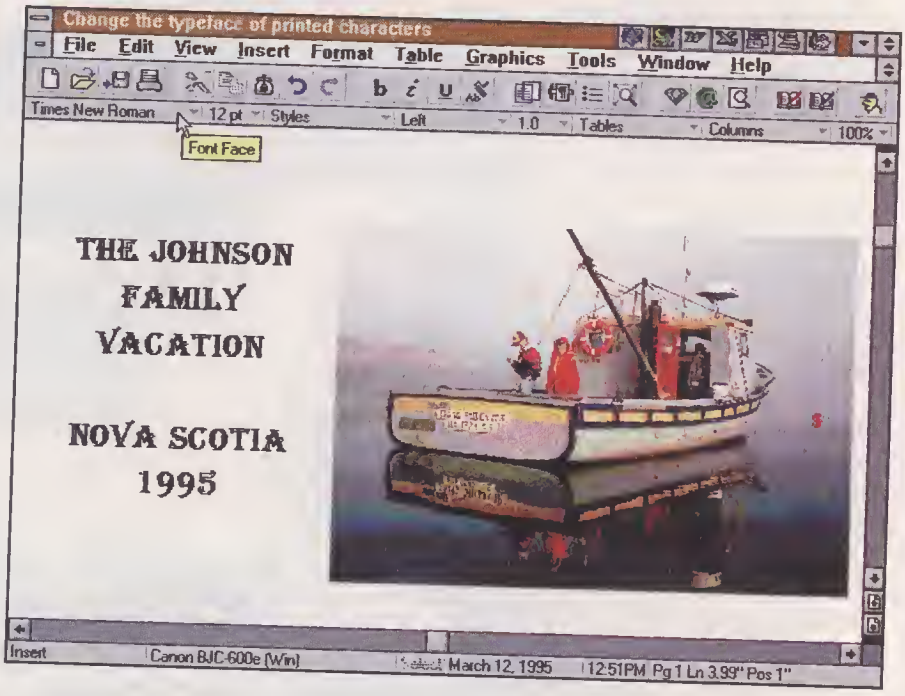
The idea is to have an image to represent the event and provide a focal point for your narrator's short tale. If your vacation included stops in several regions, consider including scanned images of a road map with a you-are-here arrow on a yellow sticky note marking each phase of the trip. Maps and sticky notes provide a great frame around which to organize your album.

Now begin laying out the album in your word processor. To start, create a cover page. Use a scripty font such as Algerian, aligned center, point size 24. On the subsequent pages, simply insert the images where you want them, just as you would in a traditional photo album.

Leave plenty of white space around your photos for dramatic effect — one

advantage over standard albums is that the "wasted" space won't really affect the storage size of the album. If you don't have any scanned road maps, a well-placed Wingding character or geometric curlicue graphic can represent travel time or separate the phases of the vacation. Add your captions under each picture, using a sans serif font such as Arial Bold in point size 12 to 14.

Now go back and add the sing-along and other sound clips from the trip, placing the icon for the clip near the photographs and artwork it goes with. Next comes the best part: recording the kids' brief comments on the passage of the vacation. Go through the album with them and talk about each element so it is fresh in their minds, but try not to put your words into their mouths. There's nothing like a child's point of view to bring a new twist to a common photograph, so let them ham it up. You can have them comment directly into the computer microphone using Sound Recorder if you have a Windows machine, or directly into the microphone using the built-in sound utility in a Mac. You can also use a tape recorder and transfer the sounds to the PC later. (One tip about sound files: keep them brief — they can consume large amounts of memory.)



Setting Sail Choosing the right cover photo will provide your electronic photo album with a realistic sense of your family vacation.

Finally, audition the album and see how it "plays." Make changes until you and your assistants are happy. You'll find that the sense of satisfaction from completing your electronic album is eclipsed only by the fond memories of your vacation.

Eric Brewer *is a regular contributor to* FamilyPC *and lives with his family in western Massachusetts.*

GREAT Multimedia Software

A number of programs are designed specifically for putting together multimedia presentations. Here are descriptions of three that we recommend.

●**MultiMedia ShowCase** from Performix Software (Windows disk, $59; 415-424-0393) is one of the least expensive of the titles available. An interesting feature of ShowCase is that you can put together a fully automated slide show with a sound track that runs through the whole presentation. You can tie sound or MIDI files to an entire page of photos and text or link sound clips to individual images. The package even comes with a viewing program that you can give to friends and relatives.

●**MediaWrangler** (Windows disk or CD-ROM, $99; AltaVista Technology, 408-364-8777) not only supports continuous sound tracks, it also adds *hyperlinks* — you give images hot spots that bring up other pictures when you click on them. This makes it particularly easy to put together albums based on a theme. A road map could have hot spots for all the places you visited during your vacation trip, or a family photo could have important information linked to each face or body.

●**Delrina's Echo Lake** (Windows disk, $69.95, or CD-ROM, $79.95; 800-734-2330 or 416-441-2778) is perhaps the most specialized program for compiling family multimedia presentations. Designed around the theme of a family reunion at a cabin by a lake, the program encourages you to put together a "book" for each family member, including photos and clips that describe home, friends, travel, and education. You operate the program by clicking on tools in a comfy-looking den and using tools on a desk. To navigate to a particular story in a person's life, you click on a pushpin marker on a cross section of a tree trunk: tree rings represent the years of a life, with life's categories arrayed around the outer bark.

Finally, multimedia finds a home.

② Landscape your yard like a pro, without having to hire one.

③ Design and build a backyard deck. Celebrate with a deck-warming party.

① Fix that leaky gutter, without draining your checkbook.

Compare specs and dealer invoice prices on more than 800 new cars. Watch video demos in our PC "showroom." ④

Find just the right flowers for your garden. Get compliments on your green thumb. ⑥

Calculate your monthly mortgage payments for a new house. Negotiate a better deal. ⑤

1. Home Repair Encyclopedia details more than 100 do-it-yourself home projects with video, animation, content and illustrations.

2. 3D Landscape brings the power of Computer Aided Design and 3D visualization to your desktop. Its multimedia how-to guide is the ultimate software "tool" for any landscaping project.

3. 3D Deck makes it easy for anyone to design and build a beautiful custom deck, while eliminating costly mistakes.

4. Popular Mechanics New Car Buyers Guide lets you compare more than 800 new cars, trucks and sport utility vehicles. Then it will calculate the exact dealer price for the model and options you select.

5. The Homebuyer's Guide helps you analyze every aspect of home buying, from searching and negotiating the best price to closing your financing.

6. Garden Encyclopedia helps you select the perfect flower, vegetable or decorative plants from more than 1000 choices.

BOOKS THAT WORK

Exactly where is multimedia headed? Your garden, for starters. Also to your kitchen, bath and attic. Books That Work titles apply the power of multimedia to do-it-yourself projects to every part of your home. They feature animations and video demonstrations, computer-aided design tools, custom construction drawings, parts lists, cost estimates, and one-touch reference guides. *The Wall Street Journal* calls it "a new class of tailored, task-oriented software" that "will solve real-world problems." Want to know more? Just ask for Books That Work at your software retailer, bookstore or home center, or call us toll-free at 1-800-242-4546 x142. Also, see our World Wide Web site at http://www.btw.com/

Books That Work is a registered trademark of Books That Work. ©Copyright 1995, Books That Work. All rights reserved.

Creative Computing

PUBLISHING

Super Sports Cards

Make your own collector's items with your PC

by Lisa and Jonathan Price

Some kids would do anything for Ken Griffey, Jr.'s, rookie card (1989) or Michael Jordan's card from his retirement year (1993). Better yet would be for your kids to see their own faces on a card. That's because, despite their simple look and feel, sports cards are kid collector's items. They represent dreams of fame.

Because today's computers and software make it so easy to mix text and images, you can make your child's dreams come true by making your own cards, complete with photograph, name, and statistics.

It's also the perfect project to do with your child, since kids love to see themselves (as well as their friends) on-screen. So pull up an extra chair and fire up your computer. Before you're through, your children and their friends will be immortalized with the likes of Griffey and Jordan. But because you made the cards, you'll be the biggest star of all.

Picture Perfect Your child's eyes will light up when he sees himself on-screen. Use a paint program to provide a consistent background for low-contrast photos.

Getting Started

While you can complete this project in any word-processing program that allows you to import images, integrated programs like ClarisWorks and Microsoft Works and desktop publishing programs such as Microsoft Publisher are best. They make it easier to manipulate images and text on a page. (Turn to page 131 for step-by-step instructions.)

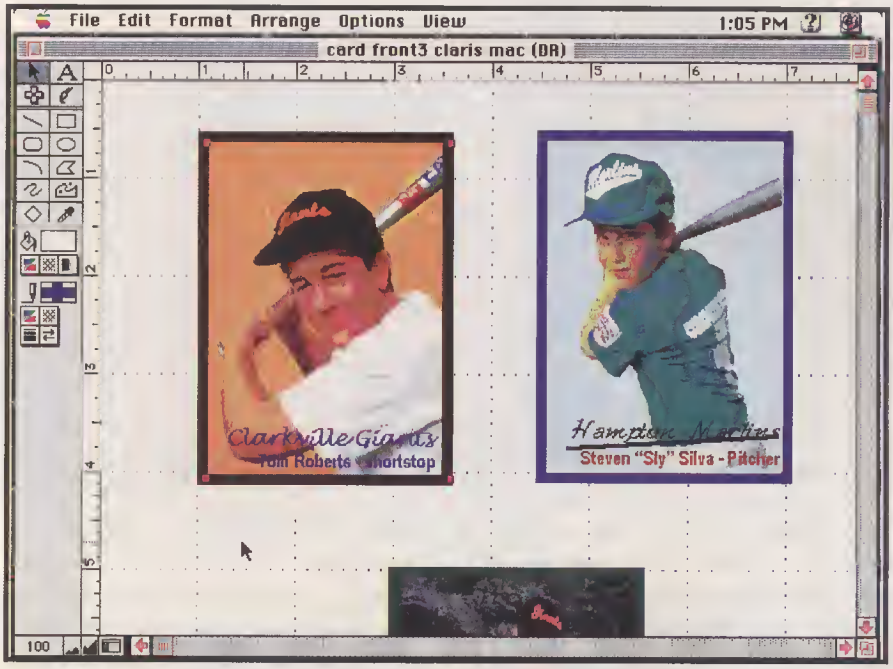
Card Cover

Your first step is to get the right pictures for the cards' covers. Indulge yourself — let the kids make faces, imitate the bat-on-the-shoulder stare of seasoned veterans, or hold up a trophy in triumph. Get as many pictures as the kids can bear.

Next, you need to digitize the images so they can be manipulated by your computer. If you use your own camera (or a disposable one), you can send the film to Seattle FilmWorks (800-445-3345 or 206-283-9074), which will develop them in a few days and return to you color prints plus a disk with the same pictures in digital form and ready to slide into your Windows computer. Total price (including software for manipulating the images): about $15 for twenty-four exposures.

You can also develop the film and then, if you have a flatbed scanner or access to one, digitize your photos that way. Many large copy businesses and neighborhood computer stores offer this service for about $12 per image.

If you have a CD-ROM drive capable of reading Kodak's Photo CDs (and most recent drives can), you can have Kodak put developed prints or slides on CD-ROM disks. Another way to digitize your images is to use a digital camera, such as Apple's QuickTake 100 (Mac and Windows, $749), which lets you take thirty-two low-resolution pictures in a row, recording them inside the camera. To see the images, you just plug the camera into your computer.



Superstars Works programs, which include integrated word-processing and paint modules, make it easy to combine photos and text in creative ways.

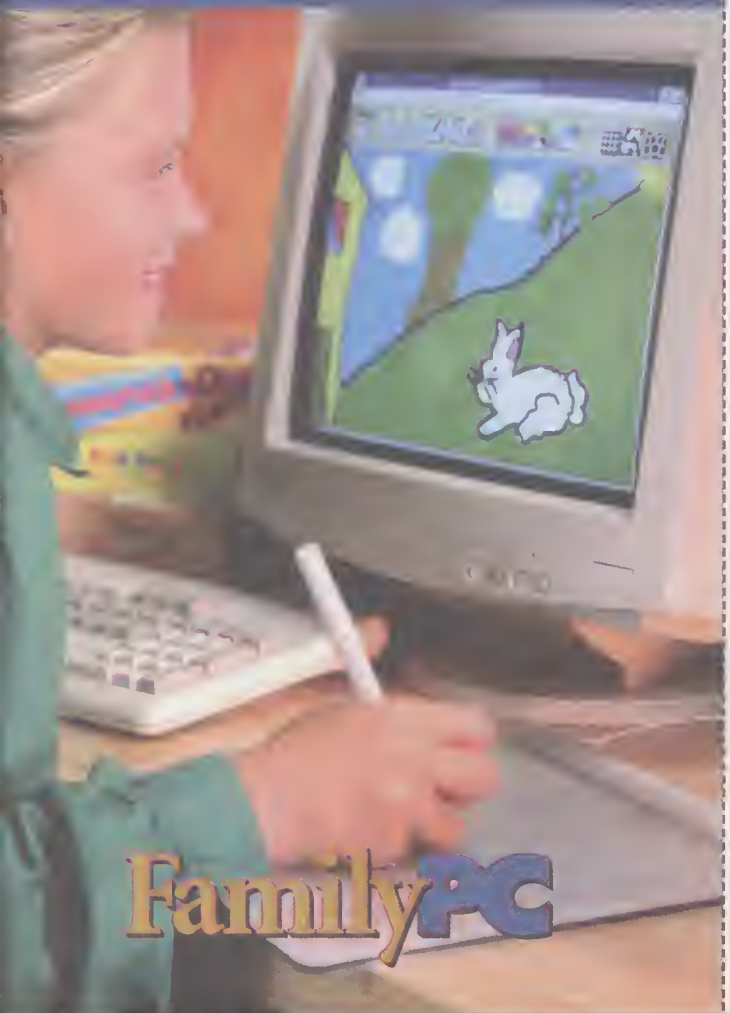
The next element on the cover is type. In the lower-right corner, list the name of your child's team in a font similar to the lettering that appears on your child's team jersey. Below that, add your child's name and position. Choose a nice, sans serif, bold font such as Arial, point size 14, for the name and position. Color all the lettering so it won't be lost against the background. (Think team colors.) You can also use the straight-line tool to draw a wide diagonal banner across the top of the picture for special announcements, such as *All-Star.*

Be sure to print out your image to see how everything looks.

Vital Statistics

The first step in creating the back of the card is to decide what information you are going to include. Then set up your page. The actual area where the text will appear is a 2- by 3-inch block, so

nvest in the Future.



AND SAVE 56%

FamilyPC always keeps the future in mind. It helps your family get the most out of a home computer and gives you the information and ideas you need to make the best computer investments for everyone.

YES! Please send a full year (10 issues) of FamilyPC for just $12.95 — a savings of 56% off the annual cover price.

NAME

ADDRESS

CITY

STATE ZIP

CHILDREN'S BIRTHDATES (month/year)

I own or plan to buy: ☐ Macintosh ☐ IBM/PC-compatible ☐ Other

In Canada, add $10.00 for postage end GST. Other foreign orders, edd $10.00. Pleese ellow 6 to 8 weeks for delivery. FamilyPC's annual newsstand price is $29.50. © FemilyPC

JFN1AAA

Creative Computing

PUBLISHING

Super Sports Cards

Make your own collector's items with your PC

by Lisa and Jonathan Price

Some kids would do anything for Ken Griffey, Jr.'s, rookie card (1989) or Michael Jordan's card

Because today's computers and software make it so easy to mix text and images, you can make your child's screen. So pull up an extra chair and fire up your computer. Before you're through, your children and their friends will be immortalized with the likes of Griffey and Jordan. But because you made the cards, you'll be the biggest star of all.

Getting Started

While you can complete this project in any word-processing program that allows you to import images, integrated programs like ClarisWorks and Microsoft Works and desktop publishing programs such as Microsoft Publisher are best. They make it easier to manipulate images and text on a page. (Turn to page 131 for step-by-step instructions.)

Card Cover

Your first step is to get the right pictures for the cards' covers. Indulge yourself—let the kids make faces, imitate the bat-on-the-shoulder stare of seasoned veterans,

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 8631 DES MOINES IA
POSTAGE WILL BE PAID BY ADDRESSEE

FamilyPC
PO BOX 400451
DES MOINES IA 50347-0451

5 REASONS WHY THE WHOLE FAMILY WILL LOVE FamilyPC

1. Informative reviews and ratings of hardware, software, games and more — based on tough evaluations by teachers, parents and kids.
2. Everything you need to know to get the best value for your computing dollars.
3. Loads of practical advice and problem-solving tips — whether you have a DOS/Windows computer or a Macintosh.
4. All the necessary details of home computing — without the technical jargon.
5. Dozens of fun, creative skill-building projects for everyone in the family to enjoy!

SAVE 56%

ANNUAL COVER PRICE
$29.50
YOUR 1-YEAR RATE
$12.95
YOUR SAVINGS
56%

FamilyPC

FamilyPC

SUBSCRIBER DISCOUNT ORDER CARD

Order FamilyPC now and save 56% off the annual cover price. Enjoy 10 issues of the magazine that helps your whole family get the most out of a home computer.

☑ **YES!** Please send a full year (10 issues) of **FamilyPC** and bill me just $12.95. I save 56% off the annual cover price.

NAME

ADDRESS

CITY STATE ZIP

CHILDREN'S BIRTHDATES (month/yeer)

I own or plan to buy: ☐ Macintosh ☐ IBM/PC-compatible ☐ Other

In Cenede, edd $10.00 for postage end GST. Other foreign orders, edd $10.00.
Pleese ellow 6 to 8 weeks for delivery. FemilyPC's annuel newsstand price is $29.50.

© FemilyPC

JFN2AAB

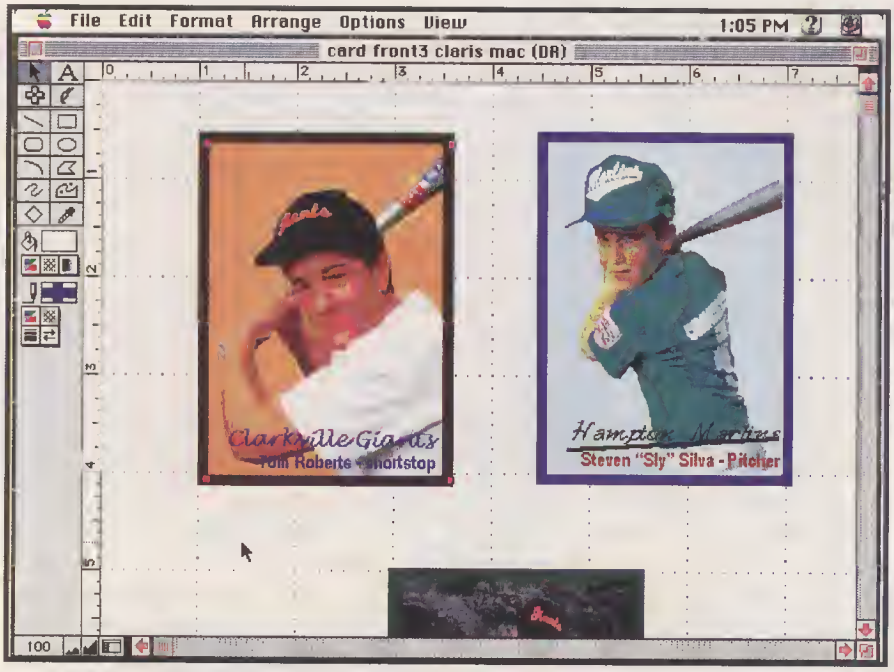
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. 8631 DES MOINES IA

POSTAGE WILL BE PAID BY ADDRESSEE

PO BOX 400451
DES MOINES IA 50347-0451



Superstars Works programs, which include integrated word-processing and paint modules, make it easy to combine photos and text in creative ways.

Once you've transferred the pictures into electronic form, use the small handles at the corners of the picture frame or the scaling command to shrink the image to the approximately 2½- by 3½-inch size of most cards. Next, add a border. Using ClarisWorks, for instance, you can set the line width to 8 points, turn the color bright orange, and draw a rectangle around the outside of the picture. In Microsoft Works, you merely select the border option and then choose from a number of styles.

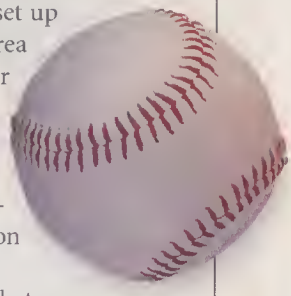
If your pictures have dark backgrounds, you can replace them with a consistent color by outlining the image you want to remain and, in the paint module of a Works program, filling in the background with the color of your choice. (Photo software available from Seattle FilmWorks and Kodak lets you lighten backgrounds, although this requires a fair amount of experimentation depending on the photograph that you use.)

The next element on the cover is type. In the lower-right corner, list the name of your child's team in a font similar to the lettering that appears on your child's team jersey. Below that, add your child's name and position. Choose a nice, sans serif, bold font such as Arial, point size 14, for the name and position. Color all the lettering so it won't be lost against the background. (Think team colors.) You can also use the straight-line tool to draw a wide diagonal banner across the top of the picture for special announcements, such as *All-Star.*

Be sure to print out your image to see how everything looks.

Vital Statistics

The first step in creating the back of the card is to decide what information you are going to include. Then set up your page. The actual area where the text will appear is a 2- by 3-inch block, so begin by setting your page in landscape mode. (More width allows you to include more information on each line.)



Use the same format that many cards employ: list the vital statistics of the player first, including height, weight, and side that he or she throws, hits, shoots, or snowboards. Below that, list the year he or she entered the sport, date of birth, and hometown.

SNAPSHOT Scanner

FamilyPC Rating ★★★½

Getting photos into the family computer has never been easy. But now there's an alternative to buying a scanner or having a photo developer scan and save your images on Photo CD or floppy disks: you can use a mini-scanner made specifically for snapshots.

EasyPhoto Reader (Windows CD-ROM, $250 street; Storm Software, 800-275-5734) is essentially a handheld scanner with an automatic feeder. Very compact and about the price of a hand scanner, it connects to the printer port of your Windows PC, extending the port so you can still plug in a printer.

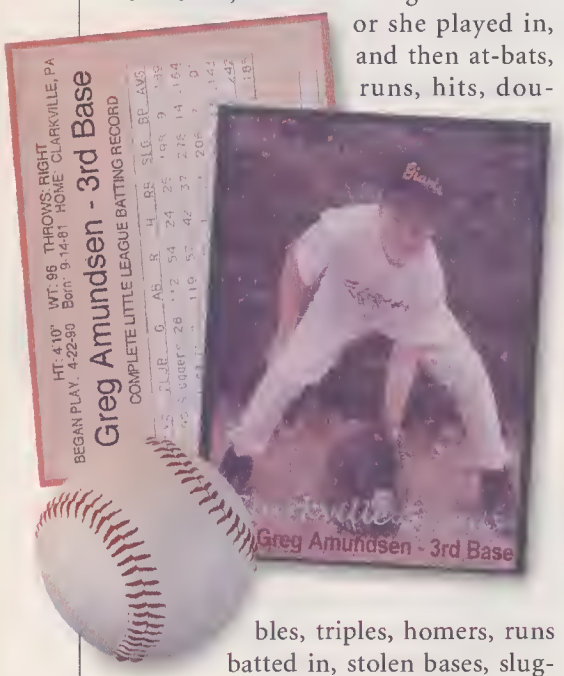
Our tests indicate that the Reader can handle pictures up to 4 by 6 inches, so it covers the range most people will need. And because you can detach it from the feeder tray and drag it over images on larger sheets of paper, you can use it to scan just about anything.

The images are scanned at a resolution of 133 dots per inch, which is sufficient for good reproduction on-screen and reasonable printed results. Through built-in image compression software, each image takes up only 100 kilobytes on your hard disk.

The EasyPhoto software, which is also available separately for about $50, lets you perform basic image manipulation, such as sizing, rotation, cropping, and adjusting brightness, hue, and contrast. You can save images in a variety of file formats or copy them to the Clipboard for insertion into your project. EasyPhoto is a handy device, especially if your only scanning needs are family snaps.

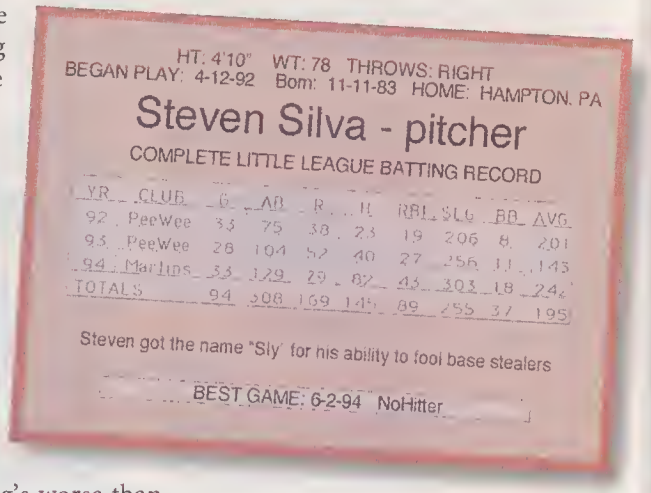
All the information should be in a sans serif font, such as Arial, and aligned center. The first two lines should be about 8 point. The third line, which consists of your child's name and position (e.g., 2B), should be about twice that size (18 point or so).

The next section is a table of your child's career. Works programs and many desktop publishing programs have table-making modules that are perfect for this purpose. If your child is a baseball player, list the stats for each year, including the names of the different teams, the number of games that he or she played in, and then at-bats, runs, hits, doubles, triples, homers, runs batted in, stolen bases, slugging percentage, bases on balls, strikeouts, and overall batting averages. (Don't worry, all of this information is in the coach's team book.) Be choosy about the statistics you want to include. Focus on the numbers that show your child excelling. Along the bottom of the table, run a row of totals.



In the next line down, include a bit of biographical information, such as "Johnny Oates is the third brother in the Oates family to play for the Greenville Barons. His idol is Hank Aaron." Include any awards here, too, such as your child being named to the league all-star team.

Finally, in the bottom, list the statistics from your child's best game, set up as a box score, with a short summary sentence that explains anything the box score can't. For example, a box score wouldn't describe the importance of a winning sacrifice fly, as a sentence might.



Again, when you're finished, print out a rough copy to see how the information looks on paper. Experiment with font sizes, line spacing, and other editing tools to make everything look good, and don't forget to have someone proofread your work (nothing's worse than silly spelling errors). When everything's ready, save your file (as a template or stationery if you are going to be making cards for more than one person).

Making the Cards

When both sides of the cards are complete, you can print them on heavy paper such as card stock (check the maximum weight your printer can accept). Or you can print on nonperforated label paper and apply that later to thin cardboard. Black-and-white printers will work fine, and you can have your kids spruce up the cards with markers and felt-tipped pens. If you have a color printer or access to one, you can make your cards look even more professional. (Many computer service centers have good-quality color printers. Call in advance to see what platforms and programs their computers support.)

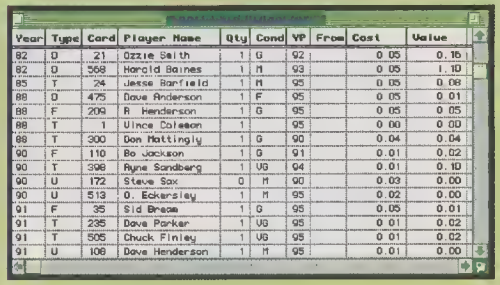
Apply the sheets to thin cardboard and cut them out with scissors. Cards can get scuffed up pretty easily, so pick up some plastic sleeves or pockets from a local card-trading store. A less expensive option is to go to an office supply house and get plastic sheets for laminating. Trim the plastic so there is about a half-inch all around the card. Apply the plastic to one side. Then cut out a similar-size sheet and lay that on the back, forming a sandwich. In no time you'll have cards that will be cherished for a lifetime — or at least until next season. FPC

Lisa and Jonathan Price *are the proud parents of two veteran Little Leaguers and are regular contributors to* FamilyPC.

CARD Shark

A database for the sports-card aficionado

Hobbysoft Sportcard Organizer Deluxe (Mac or DOS disk, $69.95; Ninga Software, 800-656-4642 or 403-283-2772) lets you say good-bye to the unwieldy three-ring notebooks full of baseball cards. With Sportcard Organizer Deluxe, not only can you or your child find, in a flash, any card in your collection, but you can also find out how much it's worth, when it was purchased, and how much it cost. This database lists the value of more than 134,000 baseball, hockey, football, and basketball cards from all the major manufacturers. You can print out reports, search by a number of different categories, update the market value of your collection, add cards that aren't in the database, and create a card wish list.



Year	Type	Card	Player Name	Qty	Cond	YP	From	Cost	Value
82	D	21	Ozzie Smith	1	G	92		0.05	0.15
82	D	568	Harold Baines	1	M	93		0.05	1.10
85	T	24	Jesse Barfield	1	M	95		0.05	0.08
88	D	475	Dave Anderson	1	F	95		0.05	0.01
88	F	209	R. Henderson	1	G	95		0.05	0.05
88	T	1	Vince Coleman	1		95		0.00	0.00
88	T	300	Don Mattingly	1	G	90		0.04	0.04
90	F	110	Bo Jackson	1	G	91		0.01	0.02
90	T	398	Ryne Sandberg	1	VG	94		0.01	0.10
90	U	172	Steve Sax	0	M	90		0.03	0.00
90	U	513	O. Eckersley	1	M	95		0.02	0.00
91	F	35	Sid Bream	1	G	95		0.05	0.01
91	T	235	Dave Parker	1	VG	95		0.01	0.02
91	T	505	Chuck Finley	1	VG	95		0.01	0.02
91	U	108	Dave Henderson	1	M	95		0.01	0.00

STEP BY STEP

Sports Cards

Here's how to make them on your PC

Tools

- ClarisWorks 3.0 (Mac disk, $129; Windows disk, $99; 800-325-2747 or 408-987-8227), digitized photo, printer

Estimated Time: 40 to 60 minutes

1 Launch ClarisWorks.

2 Begin a new Draw document.

- Go to the Options menu and choose Object Size.

3 Create a border for the card front.

- Click on the Box tool.
- Click on the Line Width icon and choose 8-point line weight.
- Pick a color for the border by clicking on the lower color-indicator icon.
- Draw a box on the screen; then resize it using the Size dialog box. Enter 2½ horizontal and 3½ vertical size.

4 Import your child's photo.

- Go to the Insert menu and choose Select Image. Pick your image and click on OK.
- Drag the image into the frame you made (line it up with the top-left corner).
- Resize the picture to fit by clicking on the lower-right corner and dragging out.

5 Insert team name, player, and position.

- Click on the Text tool. Click the I-beam cursor near the bottom of the card.
- Type the team name, select the text, and change the font (try 16-point bold). Move or resize the text box as you wish.
- Enter the player's name and position in a slightly smaller type size (try 14 point).

6 Save the card front and print a sample copy (go to File and choose Print).

7 Repeat steps 2 and 3 for the back of the card, which will be in landscape mode: enter 3½ for horizontal and 2½ for vertical; go to the File menu, choose Print Setup, and select Landscape. Click on OK.

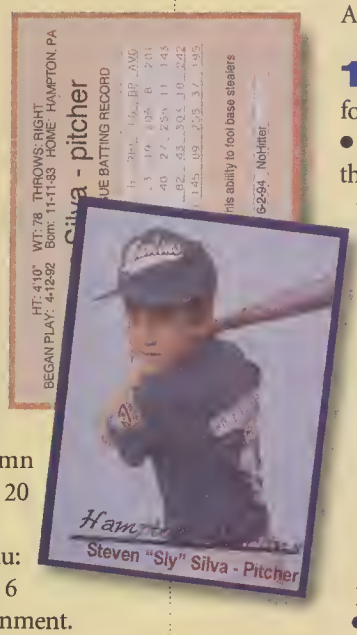
8 Add personal details describing your budding superstar.

- Click on the Text tool and set the font to 8-point Arial.
- Click near the top of the box and enter height, weight, and hand he bats and throws with (left or right). Hit return and enter the date he began playing, date of birth, and hometown. You can click outside the box and then click on the text to select it for resizing or positioning.
- Center text: go to the Format menu, select Alignment, and click on Center.
- Enter the player's name and position using 18-point bold Arial.

9 Add another box to hold "Complete Little-League Batting Record." Use 8-point plain Arial for the text.

10 Insert a spreadsheet to hold stats.

- Click on the spreadsheet tool (it looks like a fancy plus sign).
- Click and drag to create a box large enough to hold a spreadsheet with about ten columns, a row for each year played, and two more rows (for headings and totals).
- Click in the top-left corner of the spreadsheet to select all the cells. Go to the Format menu and select Column Width. Set the width to 20 and click on OK.
- Go to the Format menu: set the font to Arial 6 point; choose Center alignment.
- Go to the Options menu and choose Display... Then turn off Column and Row Headings and click on OK.



11 Add column headings.

- Type column headings (YR, CLUB, G, AB,...) in the top row of the spreadsheet.
- Click on the CLUB cell. Go to the Format menu and choose Column Width. Set the width to 40.
- In the bottom-left cell, type Totals.

12 Fill in the spreadsheet cells with the player's statistics.

- Type values in all but the Totals row.
- **SPECIAL TIP:** To format the batting average so it comes out .202 rather than 0.202, enter the average in the form =".202". The equal sign and quotation marks trick your spreadsheet into thinking the .202 is a text string instead of a numerical value.
- Except for overall batting averages (which you have to calculate by hand), the spreadsheet can calculate column totals. If you are totaling stats for four seasons, enter =SUM(C2..C5) into cell C6. This tells your spreadsheet to total cells C2 through C5 and enter the total in cell C6.
- Resize and position the spreadsheet in the center of the back of the card.

13 Add a personal fact about the player in the space under the spreadsheet by choosing the Text tool (we used 8-point Arial) and typing it in.

14 Create a box score for the player's best game.

- Select the Box tool. Set the line width to 1 point, the border to black, and the box interior to white.
- Click and drag to create a box to frame the text.
- Select the Text tool, click in the text box you just created, and enter the game information.
- Enter the stats in 8-point Arial.
- Resize and center the text box and the frame.

15 Save the back of the card and print it.

USA FLEX Name Brands for Less!

IBM ThinkPad 360C — Only $1999

Intel 486SX-33
8.4" Active Matrix Color Display
340MB Hard Drive
4 MB RAM (Max. 20MB)
2 Type I & 1 Type II or 1 Type III PCMCIA Slots
TrackPoint II Pointing Device

Authorized Advanced Products Dealer

262030F

CREATIVE Sound Blaster Value CD Sound Blaster 16 Sound Card and 2X Internal CD-ROM Drive — New — Only $249

300KB/sec transfer, 320ms access time, 64K buffer, 16-bit stereo sampling & playback, 20-voice, includes Grollers Mult. Encyc., Aldus Photostyler SE, passive speakers & 12 multimedia apps and utilities.

D1-VALUECD

HEWLETT PACKARD HP DeskJet 560C Printer — In Stock and Ready to Deliver!

Sharp 600x300 dpi,
Up to 3 ppm,
Up to 16.7M Colors,
Dual Ink Cartridge System

PC Editors' Choice November, 1994

Only $469

C2168A

Notebooks/Subnotebooks

NEC

VERSA V/50D 250MB Dual Scan	$2364
VERSA V/50C 340MB Active	$3024
VERSA V/75C 340MB Active	$3397
VERSA M/75D 340MB Active	$3114
VERSA M/75C 540MB Activo	$4014
VERSA M/100C 810MB Activo	$4724
VERSA M/100HC 810MB Active	$5097
VERSA P/75C 540MB Activo	$4627
VERSA P/75C 810MB Active	$5384

ZENITH

Z-STAR EX OX2/50 Mono 200MB	$1687
Z-STAR EX OX2/50 Dual Scan 200MB	$2124
Z-STAR EX OX2/50 Activo 340MB	$3144

EPSON

ActionNote 650 Mono 260MB	$1377
ActionNoto 660C Dual Scan 340MB	$1837
ActionNote 660CX Act. Color 340MB	$3044
ActionNote B66C Dual Color 340MB	$2394
ActionNote 880C Dual Scan 340MB	$2879
ActionNote 880CX Act. Color 340MB	$4124

HEWLETT-PACKARD OMNIBOOK

600C 0X2-50 Dual Scan 170MB	$2539
600C 0X2-75 Dual Scan 170MB	$3079
4000 DX2/50 Dual Scan 340MB	$2849
4000 DX4-100 Act. Clr. 340MB	$4499

AT&T Globalyst 200

486 SX/33 Dual Scan 170MB	$2539
486 SX/33 Activo Matrix 250MB	$3097
486 DX2/50 Dual Scan 170MB	$2849
486 DX2/50 Active Matrix 250MB	$4499

IBM ThinkPad

360C Color Active 340MB	$1999
701CS 0X2-50 Dual Scan 360MB	$3799
701CS 0X2-50 Dual Scan 540MB	$4149
701C DX2-50 Act. Color 360MB	$4799
701C DX2-50 Act. Color 540MB	$5149
701CS DX4-75 Dual Scan 360MB	$4399
701CS DX4-75 Dual Scan 540MB	$4749
701C 0X4-75 Act. Color 360MB	$5299
701C 0X4-75 Act. Color 540MB	$5649
755CS Color Dual Scan 170MB	$3899
340/540MB	$4399/$4799
755C Color Active 170MB	$3449
340/540MB	$3849/$4199
755CE Color Activo 340MB	$5599
540/810MB	$5949/$6399
755CSE Color Active 340MB	$4599
540/810MB	$5399/$4949
755CD Color Active/CD ROM 540/810MB	$7049/$7499

TOSHIBA

T1960CT 200/320MB	$2047/ $2337
T2100 250MB	$1424
T2100CS 350MB	$2224
T2100CT 350MB	$3074
T2150C05 500MB	$3584
T2150CDT 500MB	$4677
T2400CS 250/320MB	$2267/$2437
T2400CT 250/320MB	$2734/$2987
T2450CT 320/500 MB	$3517/$3767
T3600CT 500MB	$3694
T4800CT 500MB	$3524
T4850CT 500/810MB	$3874/$4087
T4900CT Pentium 810MB	$5467

TEXAS INSTRUMENTS

TM4000 M DX2/50 Dual Scan 340MB	$2124
TM4000 M DX2/50 Active color 455MB	$2624
TM4000 M DX4/75 Dual Scan 340MB	$2794
TM4000 M DX4/75 Active Color 340MB	$3047
TM4000 M DX4/75 Active Color 455MB	$3297
TM4000 M DX4/100 Dual Scan 524MB	$4227
TM5000 Pentium 75 Act. Clr. 810MB	$5779

Modems/PCMCIA

HAYES

PCMCIA OPTIMA 14.4+FAX14.4	$185
ACCURA 144+FAX144 int/ext	$92/$112
ACCURA 288V.FC+FAX int/ext	$185/$219
OPTIMA 144+FAX144 int/ext	$369/$369
OPTIMA 288 V.FC+FAX int/ext	$379/$439
ESP Communications Accelerator	$75

US ROBOTICS

Sportster 14.4 Fax int/ext	$95/$109
Sportster 14.4 PCMCIA	$179
Sportster V.34 int/ext	$219/$239
Sportster V.34 PCMCIA	$349
Courier Dual Standard 14.4 PCMCIA	$349
Courior V.34 int/ext	$379/$419
Courior Dual Std 28.8 PCMCIA	$399

MOTOROLA

LIFESTYLE 28.8/14.4 Fax external	$225
PCMCIA 14.4/14.4	$175
PDWER 28.8/14.4 Fax external	$259
PCMCIA Cellular 14.4/14.4	$229

ASPEN

14.4/14.4 Data/Fax int/ext	$69/$75
V.34 28.8/14.4 Data Fax int/ext	$169/$189

MEGAHERTZ

PCMCIA X-JACK 14.4/14.4	$175
PCMCIA 14.4/14.4	$175
PCMCIA Gold Series X-JACK 14.4/14.4	$199
PCMCIA Gold Series 14.4/14.4	$199
PCMCIA Ethernet Modems	$409
PCMCIA 28.8/14.4	$355
Ethernet/Modem Combo 10Base T/14.4	$419

BOCA

14.4 w/FAX internal/external	$79/$105
14.4/14.4 Multimedia	$119
Sound Expression 14.4/16bit Sound	$159
14.4 Pocket w/FAX	$155
V.34 28,800 bps Modem int./ext.	$169/$209

NEW MEDIA

Ethernet LAN 10Base-T	$129
Ethernet LAN 10Base2-10Base-T Combo	$149
New Media 14.4 Data/Fax Modem	$125
.Wav Jammer 16-bit Stereo Sound	$219
Bus Tooster SCSI-2 Adaptor Card	$185
PCMCIA 16-bit Stereo & SCSI II	$409

PRACTICAL PERIPHERALS

V.34 28.8/14.4 Data/Fax int/ext	$199/$219
14.4/14.4 Oata/Fax int/ext	$89/$109
PCMCIA 14.4/14.4	$169
ProClass PCMCIA 14.4/14.4	$179
ProClass PCMCIA 28.8/14.4	$339

Monitors/Video Cards

NEC

14" MultiSync XV14	$307
15" MultiSync XV15	$427
17" MultiSync XV17	$747
15" MultiSync XE15	$527
17" MultiSync XE17	$967
21" MultiSync XE21	$1927
15" MultiSync XP15	$627
17" MultiSync XP17	$1197
21" MultiSync XP21	$2357

HERCULES

Dynamite Pro 2MB ISA/VLB	$194
Dynamito Power 2MB VLB	$194
Dynamite Power 2MB PCI	$194
Stingray VLB 1MB VLB	$95
Stingray PCI 1MB PCI	$95
GraphiteTerminator 64 2MB VLB/PCI	$325
GraphiteTerminator 64 4MB VLB/PCI	$465

SONY

14" CPO-14SF	$349
15" CPD-15SF	$439
17" CPO-17SF	$899
17" GOM-17SE1	$1019
20" GOM-20SE1	$1887

MAGNAVOX

14" M479(mono)	$104	15" CM4015	$344
14" CM2089	$228	17" CM4018	$634
14" CM2099	$244	20" 20CM64	$1029
15" CM2015	$288		

NOKIA

14" 44BS	$399	17" 447X	$994
15" 449E	$438	17" 447X/TCO	$1094
15" 447L	$687	21" 445X	$2184

MAG Innovision

14 " LX1450LG	$238	17" 0X17F	$618
15 " 0X15F-1	$326	17" MXP17F	$898
15" MX15F-L	$458	21" MX21F	$1684

CTX

14" 6439ES	$199	15" 1562GM	$319
14"1451ES	$245	15" 1565GM	$339
14"1451GM	$255	17" 1765GM	$639
14"1462ES	$279	17" 1785GM	$699
14" 1462GM	$289		

ORCHESTRA

14" Bugle	$219	17" Tympani	$449
14" Trumpet	$239	17" Tuba	$619
15" Horn	$309		

DIAMOND

SpeedStar Pro 1MB ISA	$95
SpeedStar 64 1MB ISA*	$149
SpeedStar 64 2MB ISA*	$195
Stealth 64 1MB VLB/PCI* ORAM	$149
Stealth 64 2MB VLB/PCI* ORAM	$199
Stealth 64 2MB VLB/PCI VRAM	$319
Stealth 64 4MB VLB/PCI VRAM	$459

*Includes Corel Draw 3.0

ATI Technology

Graphics Xpression 2MB ISA/VLB	$219
Graphics Xpression 2MB PCI	$219
Graphics Ultra Pro 2MB ISA/VLB	$279
Graphics Pro Turbo 2MB ISA/VLB/PCI	$379
Graphics Pro Turbo 4MB ISA/VLB/PCI	$589

EPSON

15" SVGA .28	$329
17" SVGA .28	$599

PANASONIC

14" PanaSync C1491	$249
15" PanaSync C-1591E	$384*
(*includes $15 instant rebate)	
17" PanaSync C-1791E	$674*
(*includes $15 instant rebate)	
21" PanaSync C-2192P	$1649

Printers...Laser/Ink Jet/Dot Matrix

EPSON

ACTION Laser 1100/1400	$379/$599
ACTION Laser 1500/1600	$454/$754
LX300	$164
L0-570+/1070+	$244/$374
FX-870/1170	$287/$374
L0-300/870/1170	$196/$457/$614
L0-2550 Clr.	$967
DFX-5000+/8000	$1367/$2324
Stylus 800+/1000	$219/$427
Stylus Color	$499

PANASONIC PRINTERS

KX-P4400/P5400	$349*/$499
KX-P4430	$659
KX-P4440	$989
KX-5P100 Printer/Fax/Copier	$764
KX-P1150/P2023	$129/$175
KX-P3123/P3124	$249/ $319
KX-P2130/P2135	$169*/$195*
KX-P3696/P3626	$399/$389

*Price includes Manufacturer Rebate

DIGITAL

OECWRITER 90lx/120lx	$299/$279
OECColorwriter 550lx	$329
OECloser 5100	$1149
OEC 3500	$1799

LEXMARK

4039 LaserPrinter 10 plus	$1219
Optra R/Rx	$1427/$1999
Optra L/Lx/Lxi	$1899/$2469/$2999
WinWriter Series	
Model 400/600	$757/$997
ValueWriter 300/600	$645/$814
ExacJet Ik	$317
2380/2381 Plus Dot Matrix	$327/$439
2390/2391 Plus Dot Matrix	$547/$439
4226 Dot Matrix	$1299
IBM Color Jet Printer PS 4079	$2499

OKIDATA PRINTERS

OL400E/OL410E	$399/$544
ML320-I/ML321-I	$299/$429
ML590-I/ML591-I	$424/$584

HP PRINTERS

HP DeskJet 320/540 Printers	$298/$284
HP DeskJet 540 Opt. Color kit	$39
HP DeskJet 560C Printer	$469
HP DeskJet 1200C/C PS Printers	$997/$1587
HP Support Pack	CALL
HP LaserJet 4L/4P Printers	$499/$949
HP OfficeJet Printer/Fax/Copier	$769

CANON

BJ-100 /BJ-105X	$197/$229
BJ-200e/200ex/230	$224/$229/$384
BJC-4000/BJC-600e	$354/$458
L8P-430/ L8P-1260	$577/$1267

TEXAS INSTRUMENTS

microLaser 600	$854
microLaser Pro 600 PS23	$1167
microLaser Pro E/ Power Pro	$1347/$1597
microWriter Printer	$464
microWriter PS23/PS65	$614/$824

BROTHER

HL-630/HL-645	$389/$439
HL-655M/HL-660	$579/$679
HL-960/HL-1260	$999/$1219

MULTIMEDIA KITS / CD-ROM DRIVES / SPEAKERS

FLEX

FLEX CD Drive Upgrade Kit	$119
FLEX CD-PRO Value	$199
FLEX CD-Pro External	$219

NEC

MultiSpin 2Vi	$169
MultiSpin 2V Deluxo	$284
MultiSpin 3Xp	$379
MultiSpin 3Xp Plus Kit	$449
MultiSpin 4Xi	$368
MultiSpin 4Xe	$458
MultiSpin 4Xi kit	$449
MultiSpin 4Xe kit	$549

TEAC

CD-55A (Quad Speed)	$229

CREATIVE LABS

DmniCD	$179
DmniCD 3X 5CSI	$345
DmniCD 4X 5CSI	$395
Discovery CD 16 New Edition	$289
Sound Blaster Value CD	$249
Digital Schoolhouse	$299
Multimedia Home 4X	$449
Sound Blaster Value Edition	$49
Sound Blaster Pro Value Edition	$69
Sound Blaster 16 SCSI-2	$179
Sound Blaster 16 SCSI-2 w/ASP	$199
Sound Blastor AWE32	$299
Sound Blastor AWE32 Value Edit	$229
Advanced Signal Proc Upgrade Kit	$55
Wave Blaster II	$145
Voice Assist	$55

DRCNID

Videola	$359
Videola Premium ProD	$544
SoundWave 32 Pro	$185

MICRDSDLUTIONS

Back Pack Portable 4x	$354

MEDIAVISION

Premium 3-D (SCSI/MCD)	$145
Wavetablo Upgrade Cord	$145
Pro 3-D	$265
Reno Portable CD-ROM	$278

ADS

TV Elito ext	$199
TV Elite Int	$135
TV Elite A/V	$169
Audio Rock-it	$59
PC Primetime	$319
Video Clipper	$309

TURTLE BEACH

MontoCarlo Game Card	$89
Tropez	$195
MultiSound Monterey	$245
Entertainor	$369
Performer	$459

AI TECH

MultiPro CTV	$235
ProC/TV Plus	$145
Wavewatcher TV	$309
Wireless Bondit Game Control	$49

ALTEC LANSING

ACS51	$75

JENSEN/PDWER PARTNERS

JPS35/JPS45	$65/$119
AR22/AR42	$99/$155
AR570	$279

PANASDNIC

EAB401P Speakers	$49
EAB710P Speakors	$99
KXL-D720 Portable CD-ROM	$299

SDNY

SRS-50PC	$89
CSS-B100	$99
SRS-D2KPC	$165

Scanners

RELISYS

Reli 2412/Reli 4B16	$789/$979
Reli 9612	$1479
AVEC Colour 2400	$489
AVEC HomeScan Scanner/Fax	$328

UMAX

Vista-T630	$499
Vista S-6/S-6Pro	$649/$749
Vista S-8/S-8Pro	$729/$829
UC1260/UC1260Pro	$829/$929
MiniLook Color	$249

HEWLETT-PACKARD

HP ScanJet 3p Scanner (mono)	$469
HP ScanJet 3c Scanner (color)	$949

MUSTEK

TwainScan 256	$89
TwainScan Color 24	$179
PrinScan Color	$229
TwoinScan Duo 600	$479
Paragon 1200/2400	$899

MOUSE SYSTEMS

PageBrush/256 Mono Handheld	$99
PageBrush/256 Color Handheld	$189

EPSDN

ES1200C	$1299	ES600C	$499
ES800C	$899		

CANON

IX-4015 Color	$689	IX-3010 Grayscale	$389

Mail Order Made Easy! By...

USA FLEX

USA Flex, Inc., 471 Brighton Dr., Bloomingdale, IL 60108

Code #FP0605

TO ORDER, CALL... **1-800-944-1200**

Federal Express® Delivery Service Available

FedEx

No Surcharge On These Credit Cards

MasterCard VISA DISCOVER

FAMILY SHOPPER

YOUR GUIDE TO SMART BUYS

Green Machines Save Money

Energy-efficient PCs protect the environment — and your pocketbook

WANT TO SAVE a few bucks while you're also protecting the environment? It's easy. Just look for the Energy Star logo next time you buy a computer, monitor, or printer. Computer makers that support energy-saving machines include Apple, Compaq, Dell, IBM, and dozens of printer and monitor vendors.

The Energy Star Computers program is administered by the Environmental Protection Agency (EPA). Energy Star products must go into sleep mode automatically after a period of inactivity. Once in sleep mode, a device can be awakened within a few seconds by pressing a key on the keyboard. Any files that were opened before the power management feature was activated remain in memory, the computer screen unchanged.

By the year 2000, the EPA expects virtually all new computer devices to comply with the Energy Star program. At that point, we'll be saving 23 billion kilowatt-hours of electricity — enough juice to power Vermont, New Hampshire, and Maine annually. Not only will this save nonrenewable energy sources such as coal and oil, it will also reduce emissions into the air. For example, the EPA estimates that use of these green machines will reduce emissions of carbon dioxide, the primary greenhouse gas, by an amount equal to the emissions from 5 million automobiles.

Is It Energy Star? Look for this symbol when you go shopping.

The amount shaved off your utility bill will be considerably more modest. The EPA estimates that most people will save from $7 to $52 a year by replacing old-fashioned computers and monitors with Energy Star devices, and an extra $35 a year by also switching to a green printer. (For a free list of Energy Star products, call the EPA at 202-233-9659.)

If you aren't in the market for a new computer, consider an Energy Star–compliant controller. A controller completely shuts down your devices, saving even more energy than sleep mode but taking more time to restart.

Few controllers will work with computers, monitors, and printers, but one that does is the $140 PCResume/GMC Advanced Version from Powercard Supply LC (800-637-2797 or 703-886-0408) of Staunton, Virginia. The hardware part is a power strip into which you plug your computer, printer, and monitor. A serial connector on the controller plugs into your computer's COM1 or COM2 port. After your Windows machine is inactive for 30 minutes, the controller saves all your active files, the screen, and your application setup; quits all applications; and powers off the computer and peripherals. When you restart by pressing a button on the power strip, your screen configuration is exactly the same as before the shutdown.

The EPA says that the 30 million to 35 million PCs in the U.S. sit unused most of the time they're turned on, including nights and weekends. If you don't plan to buy new equipment, you can still save electricity by simply shutting off your computer when it's not in use.

PETER HOEY / ILLUSTRATIONS (3)

Mail-Order Strategies

Ten tips for shopping by mail

ORDERING BY phone is fast and convenient. And in many communities, mail-order companies offer better selection and prices than local computer stores. But shopping by mail can carry some risks. For successful results, follow *FamilyPC*'s top ten mail-order tips.

1 Always use a credit card. Don't be swayed by cash discounts or requests for a cashier's check or money order. If you have a problem, you can dispute the charge by contacting your credit card company.

2 Don't buy on price alone. Service, support, reputation, and company age are also important. Find out a company's reputation from user-group members or online bulletin boards. Keep in mind that older firms are generally more stable than young businesses. And find out whether the company is an authorized dealer for the product you want. If it isn't, you can't turn to the manufacturer of your computer or peripheral for help in negotiating any disputes.

3 Start small. Before you authorize a large order worth a grand or two, buy something small — a game, mouse, or modem — to give you a sense of the company.

4 Shop around. In a matter of minutes, and without leaving the house, you can get price quotes (through 800 numbers, catalogs, or ads) from dozens of dealers. Consider splitting your purchase if one company has a great deal on printers while another's software is rock bottom. Or ask if the company you prefer will match the prices offered by a competitor.

5 Compare return policies. Look for a no-questions-asked money-back guarantee. Beware of the "restocking fee," from ten to twenty percent of the purchase price, that a retailer charges to take back merchandise. Ask who's responsible for damaged or malfunctioning goods: will the retailer take it back, or must you deal with the manufacturer?

6 Check the warranty and service. If you're buying name-brand equipment, such as Hewlett-Packard, IBM, Apple, or Compaq, you'll probably find authorized service centers in your area. But if you're buying equipment with a less recognizable brand name, you may have to return the device to the dealer for warranty service. If so, ask about turnaround time.

7 Compare delivery details. Some companies charge a flat fee for delivery, while others charge by weight. Virtually all mail-order companies can get most orders to you in 24 hours via UPS, Airborne Express, or Federal Express — if you're willing to pay. So if you're in a rush, say so. Large purchases that have to be shipped by truck may take as long as three weeks. If you need your order faster, ask if the company can break it down into several smaller packages for delivery by air.

8 Is delivery inside or outside? If you're buying larger pieces of equipment, such as computer furniture that has to be shipped by truck, most trucking companies deliver to your doorstep. That makes the package vulnerable to theft if it arrives when you're not home, and it makes you responsible for carrying the product inside. If you need inside delivery, talk to the shipper or contact a local mover, which can receive the equipment and then bring it to you.

9 Communicate clearly. When ordering by phone, read off the model numbers of your purchases one at a time. After each item, ask the salesperson to state the product description. After the order is complete, ask the salesperson to repeat the entire order as it appears on the computer screen, to catch any errors. Note the salesperson's name and any special discounts or arrangements you've both agreed to. Confirm those details by fax if they are important to you.

10 Resolve problems politely and persistently. Most mail-order customers are happy with their purchases. But problems can crop up. If you run into one, be persistent. Document your attempts to resolve the issue and politely move up the chain of command until you get satisfaction.

Popular Mail-Order Companies

Large direct-sales companies such as these generally provide good customer service and support.

Company	Telephone
Computer Discount Warehouse (CDW)	800-877-4239
MicroWarehouse	800-367-7080
MacWarehouse	800-255-6227
PC Connection/MacConnection	800-800-0004

Multimedia Shopping Expands

New services let you buy online or via CD-ROM

SHOPPING from home is becoming more entertaining with the growth of electronic malls. Both 2Market and Shopping2000 now let you choose between CD-ROM and cyberspace for high-tech purchasing among a broad base of retailers.

One current disadvantage for CD-ROM users is that promotions and sales are difficult to build into the discs. Thanks to the immediate nature of online services, people who use 2Market or Shopping2000 via modem have easy access to sales prices and promotions as they happen.

2Market Choices
Customers can search for toys, music, and more.

These shopping wonderlands are fun to explore, but comparison shoppers may be disappointed. 2Market says its service isn't designed for bargain hunters and compares itself to an upscale mall with seasonal promotions. Both companies say their prices mirror the prices that appear in paper catalogs.

2Market

2Market (800-622-6600) of San Mateo, California, is a joint venture of America Online, Apple Computer, and Medior. The 2Market CD-ROM has information on products and services from more than twenty major companies, including Land's End, The Sharper Image, Winter Silks, The Nature Company, and 800 Flowers & Gifthouse.

A search feature lets you find merchandise by name or description, such as *red sweater*, or by category, such as *toys*. Item descriptions may include video clips, sound, or different views of the product. If you're stumped for a birthday present or anniversary gift, the CD-ROM will make suggestions after you answer a few questions about the age and interests of the recipient and specify a price range.

You can place orders via modem from the 2Market CD-ROM or by phone or fax. 2Market users can connect with any of its merchants via a single 800 number; the company pledges to help customers cope with any problems they can't resolve directly.

2Market is also available via America Online and eWorld; you can order products directly through those services as well. The online versions include a more limited number of merchants, but they offer contests and promotions that are unavailable to CD-ROM customers. A single 2Market CD-ROM costs $4.95; a four-disc annual subscription runs $19.95. A new version should be available by the time you read this.

Shopping2000

ContentWare (800-273-5757 or 212-447-9494) of New York recently launched Shopping-2000 a Windows CD-ROM with fifty-one merchants, including Sears Tools, J. C. Penney's, and Barnes & Noble. (A Macintosh version is expected soon.) The Shopping-2000 service is also available via the Internet's World Wide Web at http://shopping2000.com.

Unlike 2Market, neither Shopping2000's CD-ROM nor its online version lets you place orders via modem, and there is no single 800 number for telephone orders. Like 2Market, the product creates a shopping list you can use for fax or phone orders. ContentWare's founder, Kenneth Koppel, says online ordering will be built into the next version of Shopping2000, which should also have a new version available by now.

Currently, Shopping2000 does not allow you to search for specific products. CD-ROM customers can shop by merchant or scroll through a list of thirty-odd categories, such as gifts, luggage, and music. Clicking on a category gives you access to any electronic catalogs featured on the CD-ROM, plus business listings for related companies that may or may not accept telephone orders. (Koppel says an improved database is in the works.) FPC

YOUR KID CAN COME TO FUTUREKIDS AFTER SCHOOL AND MISS THE BUS. OR HE CAN GO HOME AND MISS THE BOAT.

The last bell rings, books are closed and your child thinks school is over. But it can't be. Because the truth is, they've only learned half of what they need to know. You see, while reading, writing and arithmetic were enough to get you through school, they're not enough to get your child through.

Experts say by the year 2010, computer skills will be a prerequisite for virtually every job in the country. So the question is, who's going to teach these skills to your child? Well you can, if you know the difference between a megabyte and gigabyte. But if you don't, you should consider bringing your child to Futurekids.

It's a place where kids can learn everything imaginable about computers. But it's more than that. It's where kids learn as much about themselves as they do about the machines in front of them. Where they discover how to design a robot or make their own baseball cards.

All projects are undertaken in small groups based on age and ability and coached by a caring teacher. So that your child graduates not only with an understanding of computers, but a passion for them.

To learn more about Futurekids or to find out where the nearest center is located, **call 1-800-PRO KIDS.**

FUTUREKIDS COMPUTER LEARNING CENTERS

It's your kid's future. But it's your call.

INSIDE Gigi's Top 10 summertime PC activities ➤

MEGAzine

[the computer magazine for kids]

MEGAPROFILE:

Fresh Prints of Bel Air

TV star Tatyana M. Ali is queen of the keys when it comes to computing

Cyber Star On the road, Tatyana uses a laptop. "Computers have helped me a lot," she says.

Name: Tatyana M. Ali
Age: 16
Birthday: January 24
Sign: Aquarius
Home: Los Angeles, CA
Family profile: Mom, Dad, younger sisters Anastasia and Kimberly

Best known for:
Television role as Ashley Banks on the NBC series *Fresh Prince of Bel Air.*

Favorite hobbies:
Gymnastics, swimming, and dancing.

Computer setup:
A Gateway 486 with color and laser printers at home; a Toshiba laptop for use on the road.

Computer use:
"My father taught me and my sisters how to use PCs, and I use a computer and word processor to get my homework done."

Favorite software:
"Microsoft Windows and Word for Windows. I enjoy preparing fancy reports for school using a variety of fonts and clip-art images."

Best experience:
"For my Sweet 16 party, my father and I sat down and used Aldus PageMaker to create the invitations. Together we spent several hours choosing the perfect fonts and overall design for the invitations."

Words of advice:
"We live in a world where just about everything is computerized. Young people who don't spend the time learning to use a computer will eventually be at a disadvantage. Computers have helped me a lot in school, not only to write reports, but to do research as well. This is something everyone can take advantage of."

Top 5 games voted by our readers:

1. Myst
2. Monkey Island
3. King's Quest VII
4. Where In the World Is Carmen Sandiego?
5. Eagle Eye Mysteries

Send your picks to us.

Computer-Generated Illustrations by Sara Krohn

Ask GigaBrain

[FOR GREAT GAME CHEATS AND ADVICE ON YOUR PC GEAR, NO ONE IS BETTER]

Joyride

Dear GigaBrain:

I would like to use a joystick in place of my mouse on my computer and need help. I have an AST Advantage Adventure 486DX2. I have several nine-pin joysticks that would work in my serial port. I was told I need a joystick driver. Well, where can I get one, and is that all I need?

I've heard that my Sound Blaster 16's electronic voice can read text. Windows programs like Greeting Card Maker and some others have text-to-voice options, and I have used them, so I know that it can be done. Can you tell me how?

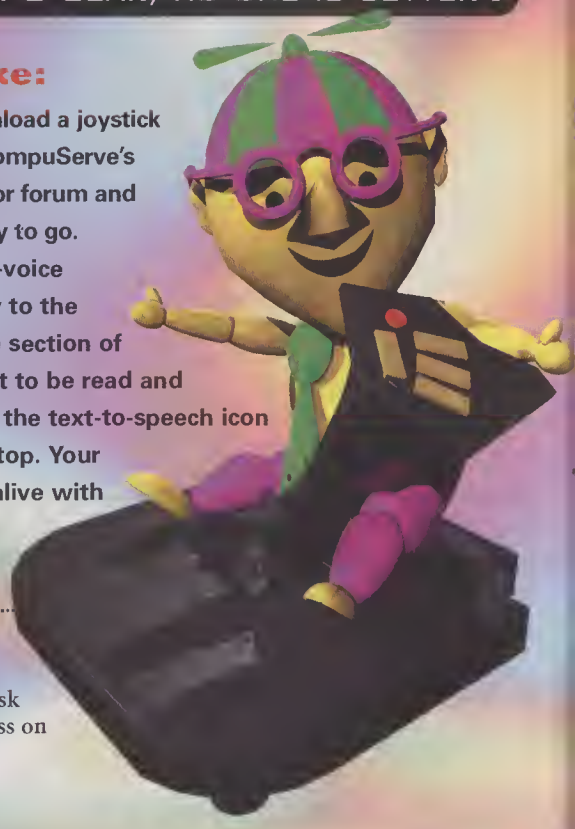
Luke Davis
Philadelphia, Pennsylvania

Dear Luke:

You can download a joystick driver from CompuServe's flight simulator forum and you'll be ready to go.

For text-to-voice options, copy to the Clipboard the section of text you want to be read and right-click on the text-to-speech icon on your desktop. Your halls will be alive with the sound of computing.

If you have a computing question, just ask Gigi! See address on page 141.



Giggles

Q: What happened when the graphics file disagreed with the PC?

A: It got in a .TIF.

Top 10 Summertime PC Activities

10. **Work** on your virtual tan lines.
9. **Design** summer job flyers — leave the lawn mowing to the other kids.
8. **Program** the laptop to announce when frosty sodas and junk-food snacks are running low.
7. **Set up** a sidewalk game arcade.
6. **Send** miserable e-mail from camp (greatly reduces return time for emergency brownie shipments).
5. **Download** huge image files from an online service — while you're at the beach.
4. **Crank up** the high-res monitor and bingo — barbeque bug light.
3. **Three words:** Ultimate CD-ROM Frisbee.
2. **Use** road-map software to plan the quickest route to Disney World.
1. **Wax up** the laptop and take it on a surfin' safari.

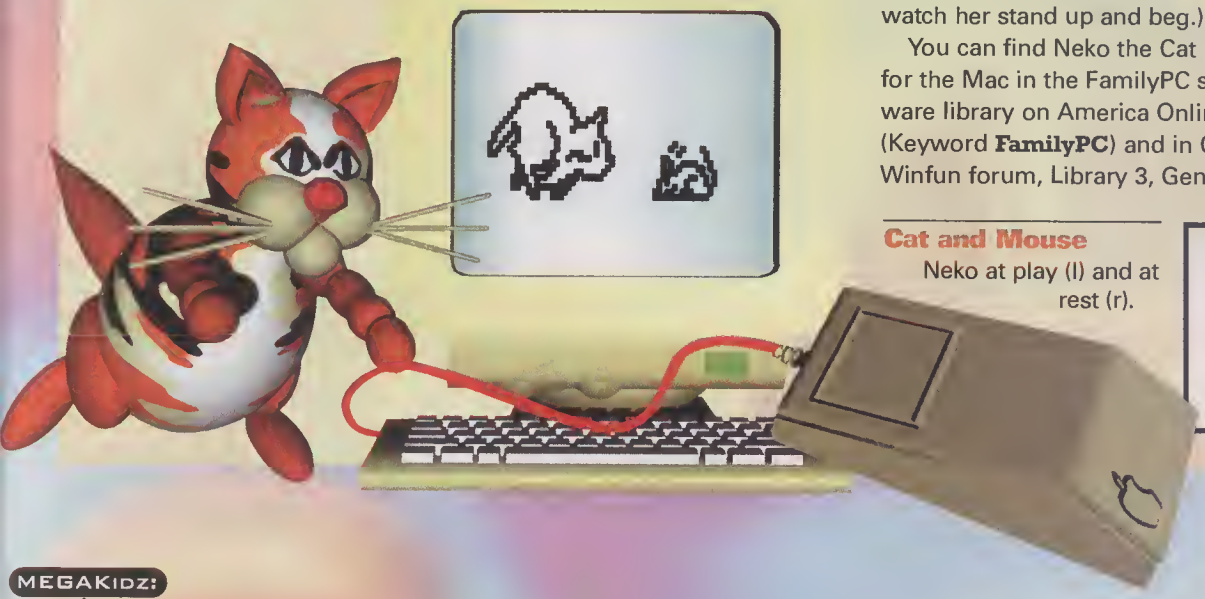
Gigi's GooFy Computer Tricks

Trick of the Month

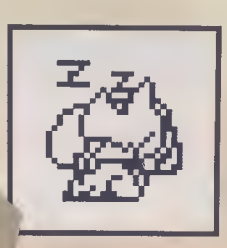
Neko the Cat (for Macintosh and PC)

Neko the Cat isn't as heartstopping as goofy tricks past, but it's so cute and clever I couldn't resist. Neko is a cartoon cat who chases the cursor (which looks like a mouse) around the screen. When she catches the mouse, she takes a catnap. (Hint: Try moving the cursor outside the Neko window and watch her stand up and beg.)

You can find Neko the Cat for the Mac in the FamilyPC software library on America Online (Keyword **FamilyPC**) and in CompuServe's Winfun forum, Library 3, General Games.



Cat and Mouse
Neko at play (l) and at rest (r).



Giggles

Q: What do you call a software fund-raiser?

A: A disk drive. *(Joel Atkinson of Lima, Ohio)*

MEGAKIDZ:

Contest **Winners** meet Microsoft **Bill**

Say "Cheese!" Back, left to right: Lee Flinchbaugh, Brian Margolis, Ben Harris. Front, left to right: Matthew Gaalswyk, Bill Gates, Jessica Jones, Jenny Paul.

Best **Quote**:

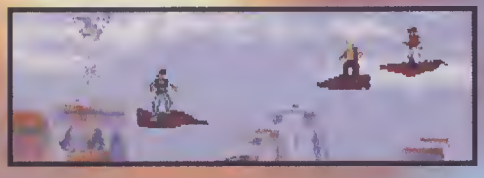
"The **coolest** thing he **[Bill Gates]** said was **when** he **explained** what **MS-DOS** is."

— *Ben Harris*

THE

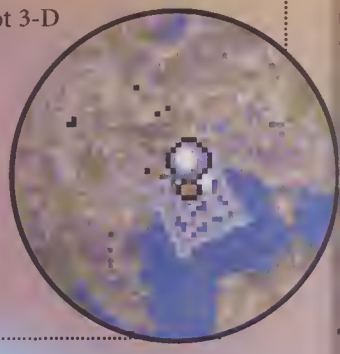
Gamester

Magic Carpet



CATEGORY: ACTION

Evil wizards conjure up trouble in Bullfrog Productions' Magic Carpet, and it's up to you to restore the natural balance of this Arabian world. In a refreshing twist on flight simulation, you fly a magic carpet through fifty levels of play, though there's no confusing cockpit — it's just you and the carpet. The game features hot 3-D graphics and supports network play, so friends using modems can join in on the ride.



Magic Carpet by Bullfrog Productions/Electronic Arts, 800-245-4525 or 415-571-7171; DOS CD-ROM, **$49.95.**

HOT TIPS

Ice the Competition

For a little extra racer's edge in Apogee's **Wacky Wheels**, try the following two tricks. In race mode, hold down the fire button until an ice cube shows up in your weapons box. Toss it at a competitor and watch him stall out and take the plunge.

You can also get an instant blast of turbo speed at any time during two-player mode by holding down both the brake and the fire keys. You'll blast past a very surprised opponent. (**Wacky Wheels by Apogee,** 800-426-3123 or 214-278-5655; DOS disk, **$34.95.**)

Shocking Strategy

Shock the mutant hordes in Origin's **System Shock** by giving yourself unlimited health. Just drop a first-aid kit on the ground and use the logic probe on it, and the box will be recharged. Repeat whenever you need that burst of energy.

You can also take health away from your opponents. Here's how: get unlimited charges on any item that requires power to operate (like a shield) by turning it on in your inventory and then clicking Version 2 turbo boosters' icon twice. Then pity any mutant or robot that dares to cross your path. (**System Shock by Origin,** 800-245-4525 or 512-335-5200; DOS disk or CD-ROM, **$60** street.)

Giggles

Q: What language do the computers on Star Trek speak?

A: ROMulan.

Tip of the Month

Commander Cool

Justin Richer of Sanford, Maine, offers this advice for getting to the Pyramid of the Forbidden in **Commander Keen Vorticons**. Go into the Pyramid of the Moons, slide down the second pole, and enter the door there. Don't worry about the inch worms; they can't hurt you. Go right (dodging the darts), and then press the *T*, *A*, and *B* keys at the same time. Open the door and turn on the switch. Then walk back to the left, making sure all the inch worms follow. If you've done this correctly, they'll turn into a giant foot. Touch the foot, and you're off! The Pyramid of the Forbidden is difficult, though, so save your game often. (**Commander Keen Vorticons by Apogee,** 800-426-3123 or 214-278-5655; DOS disk, **$34.95.**)

Diggers

Unimaginable wealth awaits a skillful prospector on planet Zarg in Millennium's Diggers. You control one of four species of warring aliens — each with its own needs for the minerals. Use a Lemmings-style interface to direct your aliens to priceless gems and ancient artifacts. The challenge of digging through thirty-four different Zargian zones makes Diggers a gold mine for any strategy fan.

Diggers by Millennium Media Group, 800-892-6848 or 215-625-8888; DOS or Windows CD-ROM, **$49.95,** or disk, **$39.95.**

CATEGORY: STRATEGY

Giggles

Q: What happened when the computer got very angry?

A: It went on a RAMpage.

WRITE MEGAZINE OR GIGABRAIN AT 244 MAIN STREET, NORTHAMPTON, MA 01060; AMERICA ONLINE: KEYWORD FAMILYPC

Wing Commander III: Heart of the Tiger

Wing Commander III is more like an interactive movie than a game, because the storyline, video sequences, and play action fit together so well. Your ultimate goal is to recover a stolen superweapon before the Earth is destroyed with it. Unlike previous missions in the Wing Commander series, this one lets you select not only which wingman flies with you but which ship the mission will be flown in. More than ever, the fate of a galaxy is in your hands.

Wing Commander III by Origin (a subsidiary of Electronic Arts), 800-245-4525 or 512-335-5200; DOS CD-ROM, **$69.95.**

CATEGORY: ACTION/SIMULATION

HOW TO SHOOT YOUR FAMILY.

You all look marvelous! But your videos don't... Because every time you set out to create the perfect family video epic, the results turn out shaky, muddy and embarrassing.

So what do you do? Hire a Hollywood hot-shot to shoot your home videos? Check out **Shoot Video Like a Pro** instead. It's an exciting, new interactive CD-ROM from Zelos that uses a unique "virtual camera" to give you a hands-on feel for production. With professional camera operation, composition, lighting, sound, and special effects techniques. First you'll shoot, then get tips and feedback from lighting directors, sound experts, and videographers.

So before you put your family through another take, call Zelos direct today and order your copy of **Shoot Video Like a Pro**— for Macintosh™ or Windows®. Only $29.95. Also available in fine software retailers and bookstores.

1-800-586-0400

CALL TODAY AND ASK FOR JASON

ZELOS

Digital Learning

ZELOS Interactive Media Publishers, 98 Battery St., Suite 300, SF, CA 94111 1.800.345.6777

Family PC

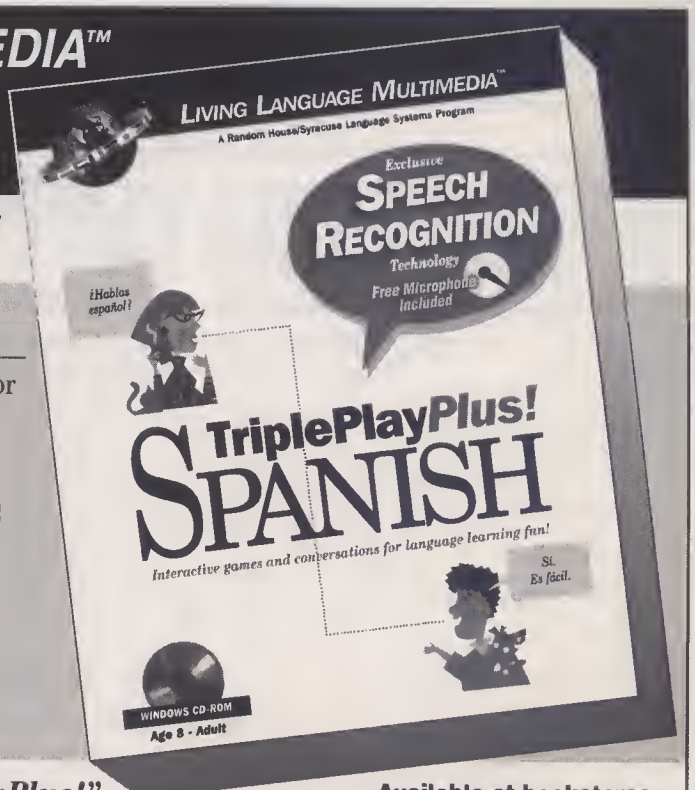
Editorial Product Index

Product	Company	Page#
2Market CD-ROM	2Market	135
3-D Body Adventure	Knowledge Adventure	77
A.D.A.M.: The Inside Story	A.D.A.M. Software	78
AcerAcros systems	Acer America	22
AcerAcros Pentium Minitower	AcerAmerica	72
ActionLaser 1500	Epson America	73
ActionTower 7000 and 8000 series	Epson America	22
Advantage Adventure 8090p	AST Research	72
Adventures with Oslo: Tools & Gadgets	Science for Kids	90
Aladdin Activity Center	Disney Interactive	77, 88
Alien Tales	Brøderbund	120
Allie's Activity Kit	Opcode Interactive	77
Amazing Animation	Claris	79
Anno's Learning Game	Putnam New Media	76
Apple Pie Music	Queue	122
Apple PowerBook 540c	Apple	114
Arthur's Teacher Trouble	Living Books	76
Bailey's Book House	Edmark	76
Berenstain Bears: Learning at Home, Vol. 2	Compton's NewMedia	77
Blockbuster Video Guide to Movies and Videos	Creative Multimedia	26
Brain Quest for the 4th Grade	Swfte International	77
Canon BJ-200e	Canon Computer Systems	73
Canon BJ-200ex	Canon Computer Systems	119
Canon BJC-600	Canon Computer Systems	73
Canon BJC-70	Canon Computer Systems	24
Canon IX-4015	Canon Computer Systems	74
Canon LPB-430	Canon Computer Systems	73
ClarisWorks 2.1	Claris	78
ClarisWorks 3.0	Claris	131
CollegeWhere	McCabe Software	121
Color StyleWriterPro	Apple Computer	73
Comic Creator	Putnam New Media	27
Commander Keen Vorticons	Apogee	140
Compaq Presario CDS 972	Compaq	117
Contura Aero	Compaq	114
Corel Gallery 2	Corel	125
Crayola Art Studio	Micrografx	79
Creative Writer	Microsoft	79
CTX 1765GM	CTX International	72, 103
DeskJet 500C	Hewlett-Packard	73
DeskJet 540	Hewlett-Packard	73
DeskJet 560C	Hewlett-Packard	73
DeskWriter 560C	Hewlett-Packard	73
Diggers	Millennium Media Group	141
Disney's Animated StoryBook: The Lion King	Disney Interactive	76
DisplayMate for Windows	Sonera Technologies	96
Early Math	Sierra On-Line	76
EasyPhoto Reader	Storm Software	129
Echo Lake	Delrina	126
EnvColor	Envisions Solutions Technology	74
Epson SVGA 17	Epson America	106
Etch A Sketch	ScreenMagic	90
Exploring the Lost Maya	Sumeria	26
Family PC 4DX2-66	Gateway 2000	72
Flying Colors	Davidson & Associates	79
Follow the Reader	Disney Interactive	76
Fortiva 5000 P5-60 DT5990	Leading Edge Products	119
Gigglebone Gang Goes to Pantsylvania	Headbone Interactive	26
Globalyst	AT&T	23
Gus Goes to the Kooky Carnival	Modern Media Ventures	26
HardBall 4	Accolade	49
Hobbysoft Sportcard Organizer Deluxe	Ninga Software	130
How Would You Survive As	Grolier Electronic Publishing	27
How Your Body Works	Mindscape	27
HP DeskJet 660C	Hewlett-Packard	24
HP OfficeJet LX	Hewlett-Packard	25
Iiyama VisionMaster 17	Iiyama North America	100
Imagination Express	Edmark	79, 83
Inherit the Earth: Quest for the Orb	New World Computing	79
Innova Media PCs	Canon	23
Inside the SAT	Princeton Review	121
JetSki Rage	Velocity	27
JumpStart Kindergarten	Knowledge Adventure	77
K5	Advanced Micro Devices	22
Kid Pix 2	Brøderbund	47, 79
Kid Pix Studio	Brøderbund	79, 82
KidPad	KidBoard	25
KidRiffs	IBM Multimedia Studio	122
KidsTime Deluxe	Great Wave Software	77
LapLink for Windows	Traveling Software	110
LapLink V for DOS	Traveling Software	110
LaserJet 4L	Hewlett-Packard	73
LaserWriter Select 300	Apple Computer	73
Latitude 433c	Dell	114
Latitude 450C	Dell	114
LBP-430W laser printer	Canon	25
Macintosh Performa 578	Apple Computer	72
Macintosh Performa 6118 CD	Apple Computer	72
MacTools Pro	Central Point	67
Madeline and the Puppet Show	ABC/EA Home Software	23
Mag InnoVision DX17F	Mag InnoVision	106

Product	Company	Page#
Magic Carpet	Bullfrog Productions/Electronic Arts	140
Magic School Bus Explores the Solar System	Microsoft	77, 84
Magnavox MagnaScan/17	Phillips	106
Master of Orion	MicroProse	48
Master Snoopy's Math	Image Smith	90
Material World: A Global Portrait	StarPress Multimedia	23
Math Dodger	Arcadia Productions	90
Math Rabbit	The Learning Company	76
Math Workshop	Brøderbund	76
Memphis Math: Treasure of the Tombs	WordPerfect Main Street	90
MicroScan 3V	AD1 Systems	25
MicroScan 4V	AD1 Systems	25
Microsoft Dinosaurs	Microsoft	78
Microsoft Encarta 1994	Microsoft	78
Microsoft Publisher	Microsoft	78
Microsoft Works	Microsoft	78
MicroWriter PS23	Texas Instruments	73
Millie's Math House	Edmark	76
Monker's Math Factory	Step Ahead Software	90
Multimedia Kit 3000	Diamond Multimedia Systems	25
Multimedia ShowCase	Performix Software	126
MultiSync XV17	NEC Technologies	72
MV 2200	Media Vision	25
MV 3200	Media Vision	25
My First Incredible Amazing Dictionary	Dorling Kindersley Multimedia	78
Myst	Brøderbund	79
NEC MultiSync XV17	NEC Technologies	98
Nokia Valuegraph 447L	Nokia Display Products	102
Norton Desktop 3.0 for Windows	Symantec	64
Norton Utilities for Macintosh	Symantec	64
Okidata OL410e	Okidata	73
OptiMem RAM Charger	Jump Development	67
Optiquest 4000DC	Optiquest	106
Oregon Trail II	MECC	120
Ozzie's World	Digital Impact	77, 84
P5-75 Family PC	Gateway 2000	72
Packard Bell Multimedia Pentium PC	Packard Bell	118
Panasonic PanaSync C1791E	Panasonic	106
Parents' Guide to Money	Intuit	24
PC Tools Pro for DOS	Central Point	64
PCResume/GMC Advanced Version	Powercard Supply LC	133
Pentium Multimedia System	Packard Bell	72
Planetary Taxi	Voyager	90
Print Artist CD Edition	Maxis	79
Print Shop Deluxe CD Ensemble	Brøderbund	79
Putt-Putt Joins the Parade	Humongous Entertainment	77
QEMM	Quarterdeck	67
Quad Speed Upgrade Kit	Turtle Beach Entertainment	25
QuickTake 100	Apple	128

Product	Company	Page#
Radioactive: The Music Trivia Game Show	Sanctuary Woods	52
RAM Doubler	Connectix	67
Reader Rabbit's Interactive Reading Journey	The Learning Company	76
Reader Rabbit's Ready for Letters	The Learning Company	76
Recess in Greece	Morgan Interactive	77
Reveal FX-08 Multimedia Kit	Reveal Computer Products	74
Rusty & Rosy Read with Me	Novell	76
Samsung SyncMaster 17GL	Samsung	106
ScanJet IIcx	Hewlett-Packard	74
ScanMan Color	Logitech	74
ScanThis	Umax Technologies	74
Seattle Film Works	Seattle Film Works	124
Shopping 2000	ContentWare	135
Silentwriter Model 640	NEC	73
Silentwriter SuperScript 610	NEC	73
Simply Village	4Home Products	24
Sound Blaster Edutainment CD 16	Creative Labs	74
Sound Blaster Multimedia Home 4x	Creative Labs	25
Space Adventure II	Knowledge Adventure	90
StickerShop Plus	Mindscape	47
Storybook Weaver	MECC	78
Student Writing Center for Windows	The Learning Company	78
StyleWriter II	Apple Computer	73
Stylus 800+	Epson America	73
Super Solvers Gizmos & Gadgets	Learning Company	90
Symantec AntiVirus for Macintosh	Symantec	64
System Shock	Origin	140
Talon TA-400 Multimedia Kit	Insight Direct	74
Tatung CM17MKR	Tatung	106
The Way Things Work	Dorling Kindersley Multimedia	78
Thinkin' Things Collection 2	Edmark	77, 88
ThinkPad 701C	IBM	25
ThinkPad 755CD	IBM	114
ThinkSmart's College Guide	ThinkSmart	121
Toshiba T1910CS	Toshiba	114
TV Coder External	Creative Lahs	25
TwainScan Duo 600	Mustek	74
USA Flex Customized AMD Family Edition	USA Flex	118
Valuegraph 447L	Nokia Display Products	72
Versa M/75 TC	NEC	114
ViewSonic 17G	ViewSonic	106
VisionMaster 17	Iiyama	72
Wacky Wheels	Apogee	140
What's the Secret?	3M Learning Software	77, 86
Widget Workshop	Maxis	77, 86
WinBook XP	WinBook	114
Wing Commander III	Origin	141
Zeos Meridian 400	Zeos	114
Zurk's Rainforest Lab	Soleil Software	90

LIVING LANGUAGE MULTIMEDIA™ introduces an exciting new way to learn a language!



Winner of five major computer industry awards for excellence and innovation.

TriplePlay*Plus!*

- The first interactive language program to use **speech recognition technology!**
- Only **TriplePlay*Plus!*** listens to you and evaluates your accent
- Three ways to play over 21 games and 12 comic strip dialogues—understand, read, and speak
- For age 8 through adult—language learning fun for the whole family
- Windows CD-ROM program runs on any standard multimedia PC
- Free microphone and Living Language™ dictionary included in package

TriplePlay*Plus!* is available in Spanish, German, French and English.

"No...tutorial is easier to use than TriplePlayPlus!"
—PC Magazine

Available at bookstores or wherever CD-ROM programs are sold or to order call

LIVING LANGUAGE MULTIMEDIA™ **1 800-793-BOOK**

FamilyPC

Advertiser Index

Many of the companies listed below would like to tell you more about their products and services. To receive FREE information on hardware, software, and more, please circle the appropriate Reader Service numbers (RS#) on the adjacent card.

ADVERTISER	RS#	PAGE#
Acclaim Entertainment, Inc.	3	146
Accolade	13	147
AceCad, Inc.	52	107
A.D.A.M. Software, Inc.	14	46
Acer Computers	1	6-7
American Institute For C.S.	15	149
Apple Computer		35
Apple OS		15
AST		30
At-Home Professions		148
Best Personalized Books		148
Big Top Productions	16	61
Books That Work	17	127
C Otter		148
D & K Enterprises, Inc.		148
CO-DU-CO	18	150
Canon Computer Systems Inc.	19	18-19
CompUSA		87
Corel Corporation	20	33, 53, 89,123
Create-A-Book		148
Creative Labs, Inc.	21	85
Computer Furniture Direct	22	113
Crown Publishing Group		143
DDA Inc.	6	146
Delphi Internet	23	75
Digital Pictures, Inc.	12	4-5, 147
Discis Knowledge Research	4	60, 146
Disney Interactive		145
Disney Video	49	38-39
Edmark Corporation	24	58
Educorp	25	149
The Edutainment Company	26	116
Electronic Arts	50	16-17, 26-27
Envisions	27	91
FamilyFun	124	136
FamilyPC	125	145
Fidelity Investments		69
FutureVision Multimedia	28	105
Gateway 2000	29	C2-1
Gold Disk, Inc.	10	147
Grolier	49	2-3
Gryphon Software	30	57
Heylmun Video	31	150
Hyperglot Software Co.	32	149
IBM Multimedia Publishing Studio	51	11, 50-51
Information Management Products, LLC	33	150
Intellimedia Sports	34	149
Logitech	35	8
Lyriq Intl Corp	7	146
Maxis	37	35
Micro Multimedia Labs	11	147
Micron Computer, Inc.	38	12-13
Microsoft		28-29
Multicom Publishing	9	147
Nokia Display Products, Inc.	39	44-45
Okidata		21
Omnimedia		37
On Line Computer Systems	40	150
Pixel Perfect, Inc.	5	146
Princeton Graphic Systems	36	92-93
Prodigy Information Services Company	41	24a
Quantex		C5-C8
Rand McNally TripMaker™		87
Sanctuary Woods	42	43
Sears Brand Central	43	41
Serif		115
Sports Sciences Inc.	2	145
Storm Software	44	101
Toyota Motor Sales		70
Turner Home Entertainment	45	99
USA Flex, Inc.	46	132
x:treme entertainment	8	146
Voudette, Inc.	47	150
Zelos International	48	142

This Index is provided as an additional service by the publisher, who assumes no liability for errors or omissions

A D V E R T I S E M E N T

Father's Day Gift Guide

Father's Day is a time to remember dad and let him know you care. Your family PC is a great place to start for gifts that dad will use, have fun with and will not want to hide in the back of his tie rack.

The Companies listed in this section would like to tell you more about their products and services. To receive FREE information, please refer to the advertiser index page, circle the corresponding number on the card,

ADVERTISEMENT

FamilyPC FATHER'S DAY GIFT GUIDE

To receive FREE information from the companies listed in the Father's Day Gift Guide and the Advertiser Index page, please circle the corresponding numbers below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120	121	122	123	124*	125*							

*For item 124 and 125, you will be billed $12.95 for one year (10 issues) or $22.95 for international or Canadian orders (including postage and GST).

NAME

ADDRESS APT NO.

CITY STATE ZIP

OFFER EXPIRES JULY 16, 1995

060195

ck up
etailer.
t loca-
sis and

FamilyPC
Advertiser Index

Many of the companies listed below would like to tell you more about their products and services. To receive FREE information on hardware, software, and more, please circle the appropriate Reader Service numbers (RS#) on the adjacent card.

ADVERTISER	RS#	PAGE#
Acclaim Entertainment, Inc.	3	146
Accolade	13	147
AceCad, Inc.	52	107
A.D.A.M. Software, Inc.	14	46
Acer Computers	1	6-7
American Institute For C.S.	15	149
Apple Computer		35
Apple OS		15
AST		30
At-Home Professions		148
Best Personalized Books		148
Big Top Productions	16	61
Books That Work	17	127
C Otter		148
D & K Enterprises, Inc.		148
CO-DU-CO	18	150
Canon Computer Systems Inc.	19	18-19
CompUSA		87
Fidelity Investments		69
FutureVision Multimedia	28	105
Gateway 2000	29	C2-1
Gold Disk, Inc.	10	147
Grolier	49	2-3
Gryphon Software	30	57
Heylmun Video	31	150
Hyperglot Software Co.	32	149
IBM Multimedia Publishing Studio	51	11, 50-51
Information Management Products, LLC	33	150
Intellimedia Sports	34	149
Logitech	35	8
Lyriq Intl Corp	7	146
Maxis	37	35
Micro Multimedia Labs	11	147
Micron Computer, Inc.	38	12-13
Microsoft		28-29
Multicom Publishing	9	147
Nokia Display Products, Inc.	39	44-45

PLACE STAMP HERE

FamilyPC

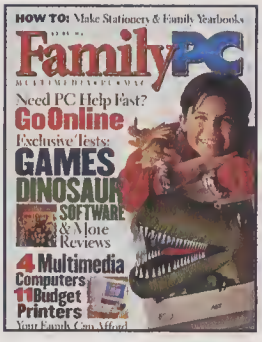
PO BOX 10133
RIVERTOWN, NJ 08076-0133

A D V E R T I S E M E N T

Father's Day Gift Guide

Father's Day is a time to remember dad and let him know you care. Your family PC is a great place to start for gifts that dad will use, have fun with and will not want to hide in the back of his tie rack.

The Companies listed in this section would like to tell you more about their products and services. To receive FREE information, please refer to the advertiser index page, circle the corresponding number on the card, fill in your name and full address and drop it in the mail.



A GREAT MAGAZINE AT A GREAT PRICE!

FamilyPC is packed with practical advice, loads of creative ideas, and the best buys for all of your computer needs! It's the one gift that the whole family will enjoy. One year (10 issues) is only $12.95 - you save 56% off the annual $29.50 newsstand price. To order, call: 1-800-413-9749.

FamilyPC

POCAHONTAS SCREEN SCENES

Experience the beauty of Disney's *Pocahontas*. Choose from 50 brilliant, full-color scenes. Design a slide show, screen saver or use as backdrops behind your Windows applications. 1-800-688-1520

Disney INTERACTIVE

INTERACTIVE GOLFING FUN!

This Father's day swing away with PC Golf™. For IBM®PC golf fun, pick up PC Golf at your favorite software retailer. Call (216) 963-0660 for your nearest location. Also available for Sega Genesis and Super NES video game systems.

PC golf

SPORTS SCIENCES INC.

A D V E R T I S E M E N T

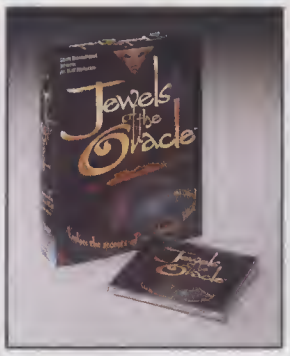
Father's Day Gift Guide

The Companies listed in this section would like to tell you more about their products and services. To receive FREE information, please refer to the advertiser index page, circle the corresponding number on the card, fill in your name and full address and drop it in the mail.

NOTHING, NOTHING CAN PREPARE YOUR PC

...for the ultimate in Father's Day gifts: MORTAL KOMBAT® II on CD-ROM! True arcade graphics and character animations, CD-quality music and sound f/x, special moves, surprises, babalities, and more! Yours to kommand in the ultimate KOMBAT!

Acclaim entertainment, inc.



JEWELS OF THE ORACLE

Discover the hidden chambers of an ancient civilization lost in time. Unlock the secrets of the Oracle's puzzle devices.

A virtual playground with stunning 3D graphics and animation. Incredible game play! Endless hours of mind bending entertainment! A must have game!

Discis

DR. SCHUELER'S SELF-HEALTH

Dr. Schueler's Self-Health, the first multimedia health title which focuses on personal wellness by providing you with ten new software tools to manage your health.

PIXEL PERFECT ♥ INC.

GIVE DAD THE PERFECT POWER TOOL!

PhoneDisc '95 PowerFinder delivers 90 million business and residential directory listings on CD-ROM. Dad will love finding old friends or new business. It's the fastest and most accurate phone directory. A must for his computer tool box! Call today to order: 800-284-8353.

DDA PHONEDISC CD-ROM

PhoneDisc

RATHER BE GOLFING!

Picture Perfect Golf is a virtual reality golf game that uses actual course photography on every shot with real golf shot rolls, bounces and sound to bring home the experience of playing the world's finest courses. Rated 5 Stars! Call 800-433-4464.

LYRIQ™ INTERNATIONAL CORPORATION

1701 Highland Ave., Cheshire, CT 06410
Tel: (203)250-2070 Fax (203)250-2072

THE ULTIMATE SEVEN
An x:treme collection

The Ultimate Seven is a collection of 7 award winning titles covering all genres of game play including sports, flight simulation, adventure, role play, political and business simulation, and 4 new-release playable demos.

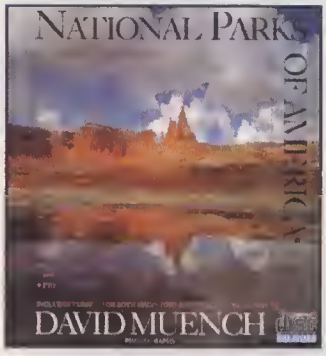
x:treme® entertainment

©1995 x:treme entertainment.

A D V E R T I S E M E N T

Father's Day Gift Guide

The Companies listed in this section would like to tell you more about their products and services. To receive FREE information, please refer to the advertiser index page, circle the corresponding number on the card, fill in your name and full address and drop it in the mail.



NATIONAL PARKS OF AMERICA BOOK & CD

Inspiring videos & over 900 photographs by David Muench are part of this complete guide to more than 230 of America's national parks. Includes the National Parks of America book. Available for Windows and Macintosh from Multicom Publishing.

MULTICOM Publishing

WINES OF THE WORLD AN ELEGANT GUIDE

The definitive guide to world wines with video, photos, text and audio comments from the growers themselves. Includes a database of over 20,000 wines! Available for Windows and Macintosh CD-ROM from Multicom Publishing.

MULTICOM Publishing

THE EASIEST WAY TO CREATE PERFECT HOME VIDEOS

VideoDirector connects your PC to your camcorder and VCR. Just choose the shots you want in the order you'd like to see them. VideoDirector does the rest, assembling a perfect tape of cherished memories. It's quick, it's easy and it's fun!

GOLD DISK

GET SERIOUS ABOUT MULTIMEDIA AUDIO

Power up Dad's PC or MAC with 40 WATTS RMS. per channel with <1% THD. The TC1490SP System adds true HI FI performance to any Multimedia Computer. 1 1/2" H. ZERO Footprint Chassis supports any monitor up 20". The PC AMP is bundled with SP510 Speaker System which features 5 1/4" Woofer and 1" Dome Tweeter. Suggested retail price is $229.95. For more information call 410-429-4300.

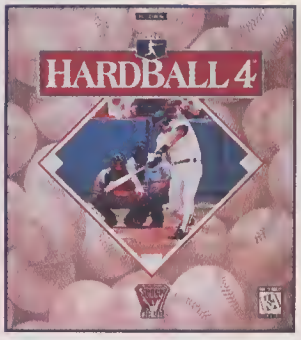
MICRO MULTIMEDIA LABS INC.

TAKE ON SCOTTIE PIPPEN THIS FATHER'S DAY!

Slam City™ lets you go one-on-one with real players including Scottie Pippen. So much action it's on 4 CDs! Brought to you by Digital Pictures, the leader in interactive CD-ROM games that puts you right in the action. To order call 1-800-262-5020.

Digital Pictures

Digital Pictures, the Digital Pictures logo and Slam City are trademarks of Digital Pictures, Inc. ©1995 Digital Pictures, Inc. All Rights Reserved.



DON'T DREAM OF THE PERFECT GAME. BUY IT.

HardBall is the best-selling PC baseball game series of all time. And now, HardBall 4 takes it to an unfair level. You get 700 MLBPA stars. Stat compilation. And unequalled graphic realism. Anything else, dare we say it, would be a replacement.

SPORT ACCOLADE

Family PC MARKETPLACE PREMIER

HARDWARE

Boards/Components/Chips
CD-ROM Drives
Communications
Computer Systems
Input/Output Devices
Mass Storage Devices
Midi/Music
Security

SOFTWARE

Business 148
Business Applications/Membership 148
Business Opportunities 148
Communications
Voice Mail
Education 149
Entertainment/Games
Graphics/Design
Multi-Media/CD-ROM 149
Personal 150
Public Domain
Religion
Security
Shareware
Systems/Languages
Utilities

SUPPORTING PRODUCTS

Digital Output Services
Information Resources
Services
Supplies 150
Videos 150

For Marketplace Advertising Information Call 1-800-825-4237

Barry Gabloff, Account Representative, **212-503-5131**

Create-A-Book®

Make Money
Personalizing Children's Books

- Use Your Home Computer • No Experience Necessary
- Original Patented Processes
- Interactive Sticker Books
- Quality Handcrafted Books

Largest Selection, Lowest Price
1-800-732-3009

Leading the Industry for over 14 Years!

Personalized Children's Books

Start your own business today making and selling these fun and exciting books.

CALL TODAY!!!
214-248-9100

My Very Own Book
D&K Enterprises, Inc.
3216 Commander, Ste 101, Dept 15
Carrollton, TX 75006

OR FAX - 214-248-9750

MAKE MONEY WITH A COMPUTER!

Start A Business At Home Creating Personalized Books

- Disney,© Barbie,© Power Rangers,© NFL,© Warner Brothers,© & Where's Waldo?©
- 30 Book Titles
- Religious and Ethnic Themes
- Books, Business Cards, Clocks and Stationery
- 500% Profit With A Small Investment

(214) 250-1000
FREE Book & Kit
BEST PERSONALIZED BOOKS
4201 Airborn • Dallas, Tx 75248

Work at Home... We Train You!

Be a Medical Transcriptionist...Earn up to $25,000 a year!

No previous experience needed. We show you how to prepare medical histories. No commuting, no selling... work the hours you choose in what could be your greatest job opportunity. The medical profession needs skilled transcriptionists. So if you type, or can learn, our experts can train you to work at home doing medical transcriptions from audio cassettes dictated by doctors. Nationwide job placement assistance. Get free facts! No cost or obligation. Call toll-free today.

YES! Rush me free facts on how I can train at home to work at home as a Medical Transcriptionist.
1-800-475-0100
Dept. MFM65

At-Home Professions 2001 Lowe Street, Dept. MFM65, Fort Collins, CO 80525

CareerPath

TRAIN AT HOME

Earn More Money As A Computer Programmer

- Hands-on-training in today's programming languages
- Instructors available 8-hours-a-day
- All courses home study
- All software and books included
- AICS programs approved by leading companies

Call for free brochure: 1-800-767-AICS

AMERICAN INSTITUTE FOR COMPUTER SCIENCES
ACCREDITED MEMBER
World Association of Universities and Colleges

FREE CD-ROM CATALOG!

Over 900 Titles In Stock!
Drives • Bundles

"The granddaddy of all CD-ROM catalogs is EDUCORP..."
Software Publisher

We'll beat any advertised price on CD-ROM! (some restrictions)

EDUCORP® 1-800-843-9497
FPC1 INFO: 619-536-9999 • FAX: 619-536-2345 • San Diego CA

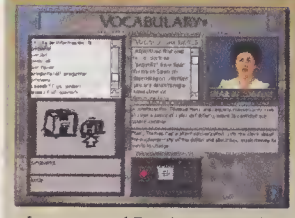
One out of every three US households has at least one computer...

That's 35,000,000 households buying peripherals, supplies, software, on-line services, etc.

Get your share. Advertise now to 200,000 computer families. **Call 800-825-4237 today!**

LINK Resources, September 1994

Need to learn a foreign language?



Learn To Speak Series 4.0

A complete first year language course with Quicktime™ video and sound on CD. This course will teach you to understand, speak, read and write Spanish or French!

HyperGlot offers a wide variety of tutorial software in Spanish, French, German, Italian, Japanese, and Russian. HyperGlot is now located on the Internet, featuring an on-line catalog and downloadable demos. Contact us at:

World Wide Web URL: http://www.hyperglot.com/hyperglot.html
or anonymous FTP site: ftp.hyperglot.com /pub/hyperglot

HyperGlot™ is a wholly owned subsidiary of The Learning Company®

HyperGlot 1-800-742-4568
The World Leader in Foreign Language Software. P.O.Box 10746 Knoxville, TN 37939

ANNOUNCING TOM KITE BY THE BYTE

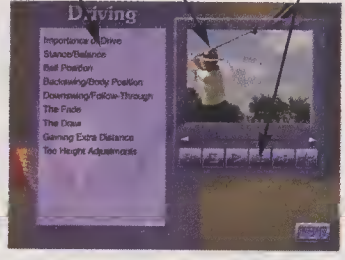
Now all the secrets that helped Tom Kite to become Golf's all-time leading money winner are on CD-ROM. Introducing **Lower Your Score with Tom Kite,** an exciting series of personal, interactive coaching from ESPN and Intellimedia Sports. The two programs, **Shot Making** and **The Full Swing and Putting,** are a complete encyclopedia designed to take strokes off your game.

Shot Making is two discs and over 80 minutes of live-action video covering finesse shots, trouble shots and sand shots. You'll also receive four additional hours of audio as sports psychologist Dr. Bob Rotella and Kite answer over 160 of the most frequently asked questions in golf.

The Full Swing and Putting, also featuring Kite and Fictalle, contains over two hours of detailed, live-action video. Learn Tom Kite's secret to the full-swing and putting, including driving techniques, common faults and cures, the grip and range games, plus several drills to fine tune your game on the green.

To repeat: this is not simple instruction. It's 1-on-1 coaching on a highly interactive, personal level which lets you decide which shots you'll be working on.

Call 1-800-269-2101 now.



ESPN IntelliMedia™

CD-ROM PC Multimedia PC The Technology For Winning

Published by Intellimedia Sports, Inc., Two Piedmont Center, Suite 300, Atlanta, Georgia 30305, 404-262-0000, Fax: 404-261-2282.
Intellimedia is a registered tredemark of Intellimedia Sports, Inc.
ESPN is a registered trademark of ESPN, Inc. The Multimedia PC logo is a certification mark of the Multimedia PC Marketing Council, Inc.
Macintosh is a registered trademark of Apple Computers, Inc.

Plan the Best Flower Garden ever!

WITH

FLOWERscape

The proven program that eliminates guesswork!

$49.95

Req: 256 color system; Windows 3.0 or later; 4Mb Ram; 10Mb HD; 3.5" high density floppy drirve.

GUARANTEED

Call...1-(800) 800-1111

FREE OFFER!

Protect Your Computer with Custom-Fit Fabric Dust Covers

Keep It Looking & Working Like Brand New!

Personalize Your Covers with Name, Initials or Photo!

- Durable, Non-Static Fabric!
- Heat Ventilating, Breathes!
- Attractive - 10 Color Choices!
- Machine Washable/Dryable!
- Custom Covers To Your Specs!
- 100% Satisfaction Guarantee!

Custom-Fit for All Makes & Models!

Sample Pricing: Call For A Specific Quote!

(2Pc) A-Monitor Atop Computer & Kybd	$29.95
(3Pc) A-Monitor, Computer & Kybd	$45.85
(1Pc) A-Monitor Only	$19.95
(1Pc) Printers	$16-24.95

Monitors: A≤15", B=16-17"Add$5, C≥19"Add$10

Limited Time Offer: Free Embroidered 3-Initial Monogram on One Piece with Purchase of $40 or More (Excluding $4 S&H).

Co-Du-Co Computer Dust Covers
4802 W. Wisconsin Ave.,Dept#FPC
Milwaukee, WI 53208-3050

800-735-1584
414-476-1584 Intn'l

LogIt for Music

Use your computer to catalog your music collection.

- Print a list of albums
- Find albums with a song
- Extensive reporting and search capabilities
- Easy Point & Click operation
- Find songs by music type
- Find albums by artist
- Catalog CDs, LPs and Tapes
- Flexible - enter only the data you want to keep

Enjoy your collection more than ever.

Call 1-800-380-4855

Logit is only $34.95 plus $6.95 S&H. LogIt requires a 386. Windows 3.1 and 10 Mb of Hard Disk space.

LogIt is personal software by
Information Management Products, LLC
PO Box 1064, 103-B East Wilton Avenue, Creedmoor, NC 27522

COMPUTER VIDEOS

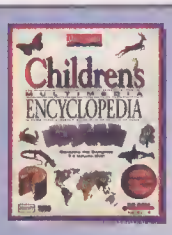
SAVE UP TO $200.00

- MICROSOFT WINDOWS
- WORD FOR WINDOWS
- EXCEL
- POWERPOINT
- WORD PERFECT (DOS)

NOW SPECIAL
ANY 3 $69.95
$180.00 VALUE
OR
ALL 5 FOR $99.95
$300.00 VALUE

CALL NOW!
TOLL FREE
1 (800) 370-6322

OR SEND: 29.95 PLUS $5.00 S/H TO HEYLMUN VIDEO
P.O. BOX 10696
RIVIERA BEACH, FL 33419



Heinemann Children's Multimedia Encyclopedia

Over 1,000 narrated photos, video clips, animations, and sound effects in a fun and easy to use format for ages 6-12. Includes eleven volumes and 1,300 articles.
MPC/MAC $69.95

Save $40.00!
Buy both CD-ROMs for $89.95

The Rabbits at Home Learning Together™ Series

A highly interactive CD-ROM promotes family values and teaches basic skills like counting, time and colors for ages 3 and up. Specially packaged with four Rabbit Family hardbound books.
MPC/MAC $59.95

See your local retailer or order by calling
(800) 308-6353
or (410) 633-1519

REED INTERACTIVE

Tired of Coupon Hide-and-Seek?

Package includes CA$H IN Software and Couponizer coupon organizer.

With CA$H IN™ for Windows, you'll finally start collecting *money* instead of just coupons! What's the secret?

CA$H IN includes the Couponizer™, a custom organizer you use with the software to painlessly eliminate your coupon mess. No more expired or misplaced coupons. Save lots of time and money, and have fun too. Call today, or you're still it!

Only $49.95 *+ S/H*

As Seen On The TV Food Network
HOMEPC Magazine
"Best Buy"

To Order, or for Free Literature
Call 7 Days/24 Hours
1-800-444-3119

G. Otter

Software, Inc. P.O. Box 7327, Capistrano Beach, CA 92624

THE CONSUMER COMPUTER MARKET IS GROWING...

By the end of 1994, consumers are expected to spend...

- ✓ **$8.8 billion for computers**
- ✓ **$3.4 billion for software**
- ✓ **$873 million for on-line services**
- ✓ **$500 million for multimedia software**

And in 1995, they'll be spending even more!

Get your share of this growing market. Advertise now to 200,000 computer families here. Call 800-825-4237.

LINK Resources, September 1994

FamilyPC

PLEASE TAKE A MOMENT to fill out this survey (all responses are confidential).
As a token of our appreciation, we will send you an issue of *FamilyPC* absolutely free.

What stories in this issue interested you most?

	Extremely Interested	Very Interested	Somewhat Interested	Not Interested
Keeping Pace (*p. 22*)	☐	☐	☐	☐
Hardware New Products (*p. 25*)	☐	☐	☐	☐
Software New Products (*p. 26*)	☐	☐	☐	☐
Help!				
Troubleshooting (*p. 31*)	☐	☐	☐	☐
Hot Tips (*p. 34*)	☐	☐	☐	☐
Helpful References (*p. 36*)	☐	☐	☐	☐
Care and Feeding (*p. 40*)	☐	☐	☐	☐
Fun				
POGfest! (*p. 47*)	☐	☐	☐	☐
Mastering Orion (*p. 48*)	☐	☐	☐	☐
Play Ball! (*p. 49*)	☐	☐	☐	☐
Radio Days (*p. 52*)	☐	☐	☐	☐
What's On				
Mind Your Money (*p. 54*)	☐	☐	☐	☐
E-Mail Management (*p. 56*)	☐	☐	☐	☐
Double Click				
Online Adventures (*p. 59*)	☐	☐	☐	☐
Family PC Toolbox (*p. 62*)	☐	☐	☐	☐
FamilyTested Awards (*p. 71*)	☐	☐	☐	☐
FamilyTested Software (*p. 80*)				
Creativity Programs (*p. 82*)	☐	☐	☐	☐
Educational Programs (*p. 84*)	☐	☐	☐	☐
FamilyTested Hardware (*p. 94*)	☐	☐	☐	☐
Working at Home				
Going Mobile (*p. 108*)	☐	☐	☐	☐
Reviews				
Hardware Reviews (*p. 117*)	☐	☐	☐	☐
Software Reviews (*p. 120*)	☐	☐	☐	☐
Creative Computing				
Vacation Tales (*p. 124*)	☐	☐	☐	☐
Super Sports Cards (*p. 128*)	☐	☐	☐	☐
Step by Step (*p. 131*)	☐	☐	☐	☐
Family Shopper				
Green Machines Save Money (*p. 133*)	☐	☐	☐	☐
Mail-Order Strategies (*p. 134*)	☐	☐	☐	☐
Multimedia Shopping Expands (*p. 135*)	☐	☐	☐	☐

	Extremely Interested	Very Interested	Somewhat Interested	Not Interested
MEGAzine				
MegaProfile (*p. 137*)	☐	☐	☐	☐
Ask GigaBrain (*p. 138*)	☐	☐	☐	☐
Gigi's Goofy Computer Tricks (*p. 139*)	☐	☐	☐	☐
MegaKids (*p. 139*)	☐	☐	☐	☐
The Gamester (*p. 140*)	☐	☐	☐	☐
Backspace (*p. 152*)	☐	☐	☐	☐

Date of birth of child/children:

Child 1 _____ Child 2 _____ Child 3 _____ Child 4 _____

Where did you get this magazine?

☐ Given to me ☐ Newsstand or other store ☐ Subscription

Do you have a computer at home?

☐ Yes ☐ No

How long ago did you buy a computer?

☐ Less than 1 year ☐ Less than 2 years ☐ More than 2 years

Do you intend to buy a computer in the next twelve months?

☐ Yes ☐ No

Are you an educator?

☐ Yes (what grades?) _____ ☐ No

☐ Yes, I want to subscribe to *FamilyPC*. Please send me the next issue free for completing the survey, and sign me up for a year (10 issues, for a total of 11) for just $12.95 ($22.95 in Canada and overseas).

☐ I already subscribe to *FamilyPC*. Please add an extra issue to the term of my subscription.

☐ No, I do not want to subscribe to *FamilyPC* at this time. Please just send me the next issue free for filling out the survey.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Would you like to join our *FamilyPC* Readers Panel? We want your ideas and opinions! Twice a year we'll send you a questionnaire and give you the opportunity to tell us what you think.

☐ Yes ☐ No

[SUR-7]

Please mail completed survey to: *FamilyPC* Magazine • Dept. 20 • 114 Fifth Avenue • New York, NY 10011

The 5th Wave

By Rich Tennant

As counsel for your parents, I am here to inform you they have agreed to pay the electric bill if you agree to eat your peas.

Congratulations, James Poetzsch!

James's caption topped more than fifty submissions to the March Backspace Caption Contest. If you have TechnoTips, Newstuff, or SurveySez information on PCs and families, let us know: *FamilyPC*, 244 Main St., Northampton, MA 01060; fax, 413-582-9070. If we use your TechnoTip, you win $50 and bragging rights as that month's funniest or most inventive *FamilyPC* family.

Cool kids

say the coolest things

Microsoft asked kids to finish the sentence, "The coolest computer could...." The winners (pictured with Microsoft CEO Bill Gates on page 139 in MEGAzine) said:

"...re-create extinct animals and plants, and interpret their language so you could spend the afternoon chatting with a dodo bird and find out what the world was like 3 million years ago."

"...baby-sit your little brother by making a hologram to entertain him (the computer would also feed him!)."

"...allow you to see the world out of someone else's eyes."

Coming in *FamilyPC* in july

FamilyTested Hardware

- A special hardware upgrade feature from *FamilyPC* Labs evaluates the best and most cost-effective system stretchers by comparing upgrades of CPU, memory, cache, hard drive, video, and CD-ROM drive.

FamilyTested Software

- Get the family perspective on four finance programs. Dozens of families from our network of more than 500 family testers report on months of real-life testing of four finance programs: Quicken, Microsoft Money, Simply Money, and Managing Your Money.

Learning Together

- Give your youngster a lesson in business building (and some hot insider tips) using simulation software like Pizza Tycoon, DynoPark Tycoon, and Gazillionaire.

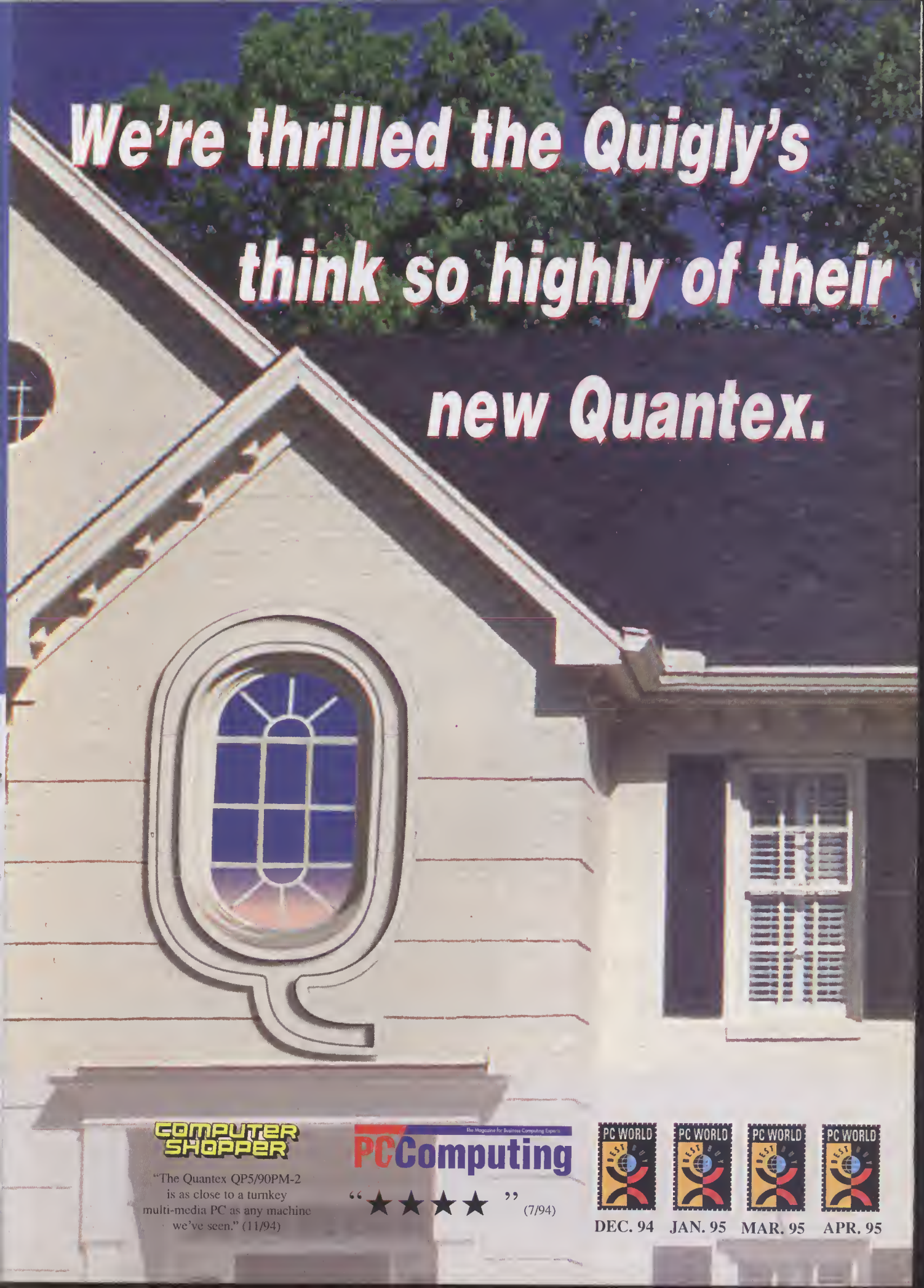
Creative Computing Projects

- Add a new twist to an old favorite — homemade multimedia cards say Happy Birthday using sounds, images, and animations.

Plus, in Every Issue of *FamilyPC*

- Help!, MEGAzine, Creative Computing, What's On, Reviews, Double Click, Fun, and more.

FamilyPC (ISSN 1076-7754), Volume 2, No. 5. *FamilyPC* is published ten times a year for the basic rate of $14.95 per year by *FamilyPC*, 114 Fifth Avenue, New York, NY 10011. *FamilyPC* is a joint venture between Disney Computer Magazine, Inc., a subsidiary of The Walt Disney Company, and Ziff Communications Company. Application to mail at second-class postage rates is pending at New York, New York, and additional mailing offices. POSTMASTER: Send address changes to *FamilyPC*, P.O. Box 400454, Des Moines, IA 50340-0454.



COMPUTER SHOPPER

"The Quantex QP5/90PM-2 is as close to a turnkey multi-media PC as any machine we've seen." (11/94)

PCComputing

The Magazine for Business Computing Experts

"★★★★" (7/94)

PC WORLD BEST — DEC. 94

PC WORLD BEST — JAN. 95

PC WORLD BEST — MAR. 95

PC WORLD BEST — APR. 95

Q486DX2/66 Special $1499

- Intel DX2™ 66MHz Processor
- 8MB RAM, 128KB Fast Cache
- 540MB 12ms IDE Hard Drive
- 3.5" 1.44MB Floppy Drive
- 64-Bit PCI Bus Graphics Engine w/1MB
- PCI Local Bus IDE Controller
- 14" 1024x768 NI Color Monitor
- 5 Bay Desktop Case
- 101-Key enhanced keyboard & Mouse
- 14,400 Baud Fax/Modem
- **Toshiba 4X CD-ROM Drive (190ms)**
- 16-Bit Stereo Sound Card w/Speakers
- MS-DOS & Windows for Workgroups 3.11
- Quicken Financial Manager-Special Edition
- CD Discs: Compton's Interactive Encyclopedia 95, Dragon Lore, Mayo Clinic Family Health Book, CardShop Plus Deluxe, and WordPerfect Main Street Select
- Prodigy, CompuServe and America On-Line*

* Upgrade to 15" Color Monitor - Add $85

QP5/75 XM-1 $1949

- Intel 75MHz Pentium™ Processor
- 8MB RAM, 256KB Fast Cache
- 850MB 10ms IDE Hard Drive
- 3.5" 1.44MB Floppy Drive
- 64-Bit PCI Bus Graphics Engine w/1MB
- PCI Local-Bus IDE Controller
- **Award-Winning 15" MAG Monitor**
- 11-Bay Mid-Tower Case
- 101-Key enhanced keyboard & Mouse
- 14,400 Baud Fax/Modem
- **Toshiba 4X CD-ROM Drive (190ms)**
- 16-Bit Stereo Sound Card w/Speakers
- MS-DOS & Windows for Workgroups 3.11
- Quicken Financial Manager-Special Edition
- CD Discs: Compton's Interactive Encyclopedia 95, Dragon Lore, Mayo Clinic Family Health Book, CardShop Plus Deluxe, and WordPerfect Main Street Select
- Prodigy, CompuServe and America On-Line*

QP5/90 XM-1 ——— **$2069**

QP5/100 XM-1 ——— **$2199**

Main Street includes WordPerfect Works, WordPerfect Infocentral, Grammatik, Wallobee Jack "The Lost Lionardo", Random House Webster's School & Office Dictionary, WordPerfect Clip Art for the Home and Paper Planes.

QUANTEX
Microsystems, Inc.

1-800-644-4680

400B Pierce Street, Somerset, NJ 08873

photography. The Intel inside Logo, IntelDX2, and Pentium are trademarks of Intel Corporation. Some of the names or trademarks shown herein may be the property of other companies. Screen images simulated. Quantex 1995. All Rights Reserved.

intel inside
pentium PROCESSOR

O.K, O.K**, so maybe the "Q" does stand for Quigly. But the fact still remains that families really do get into their Quantex systems. Quantex offers you incredible performance. All the latest features and proven technology. Plus the newest easy-to-use software packages like WordPerfect Main Street. Whether it's for business, entertainment or education, Quantex makes it exciting, easy and affordable. Just what the Quigly's and you are looking for.* ***Quantex. The latest household word.

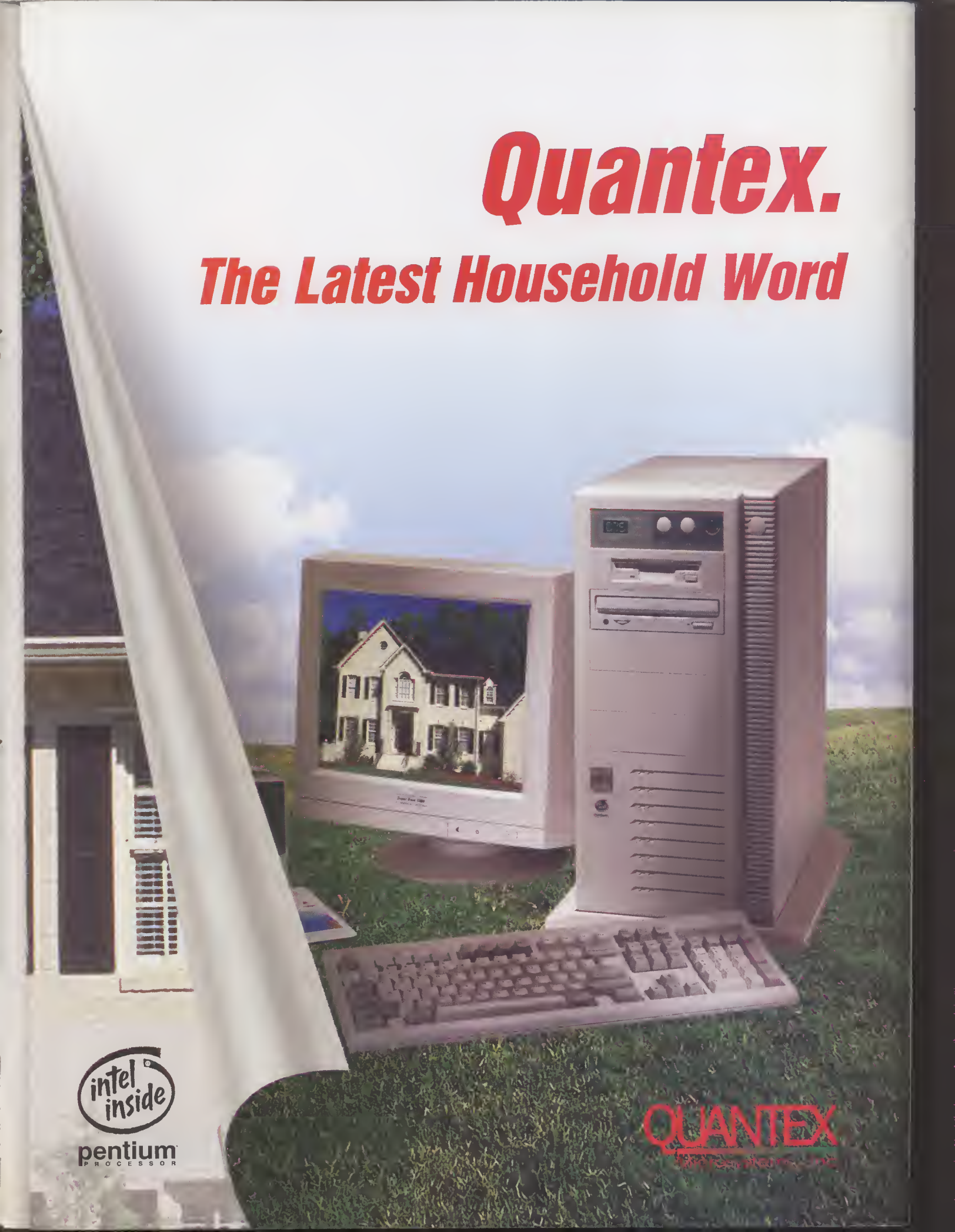
The home is where the heart is. And Quantex wants to be at the heart of *your* home. You'll cheer the smooth video performance, applaud the colorful animation, and dive deep into a sea of valuable information with a Toshiba **Quad-Speed CD-ROM**. Smiles will spread wide, as crisp sound streams through stereo speakers and on-line services come alive. Quantex has made these multimedia systems easy for everyone in your house to use and share--to bring your family closer together!

Dad just finished using **Quicken** for tax tips--then he'll add the money he saved to the kids' college fund. Soon, Mom's going to check the family's health records with the **Family Health Book**, and whip up some "Thank You" cards for her office party with **CardShop Plus Deluxe**. After that, the kids want to play **Dragon Lore**--after all, they were able to get their homework done faster (and better) with **CIE '95** and the great software in **WordPerfect Main Street,** featuring Works, Infocentral, and much more.

A Quantex Multimedia system is designed to be a much-loved member of the family for a long time to come.

Our **One Year Free Parts and Labor plan** plus **One-Year On-Site** service means that we'll fix it free! Add our **30-day Money Back Guarantee**, plus toll-free technical support for as long as you own your Quantex. You even have the option to extend your system's protection for 3 additional years with the **GE Service Protection Plus™** plan. Give one of our sales reps a call for full details.

Some software packaging may be cosmetically different than pictures shown. CD titles do not include manuals. *One months free trial membership to Prodigy, CompuServe and America On-Line.On-Site Service may not be available in certain remote areas. All returned items must have a Return Merchandise Authorization (RMA) number and must be in original packaging. The cost for returned freight is not included with any Money-Back Guarantees; shipping charges are non-refundable. Due to volatility of prices, Quantex does not offer a price protection policy. Prices and product descriptions subject to change without notice. Quantex Microsystems cannot be responsible for errors in typography or


Quantex.
The Latest Household Word
intel inside
pentium
PROCESSOR
QUANTEX